

AD-A035 405

ACADEMY OF HEALTH SCIENCES (ARMY) FORT SAM HOUSTON TE--ETC F/G 5/9
DENTAL THERAPY ASSISTANT: EXPECTATIONS, PREFERENCES, AND REALIT--ETC(U)
MAR 76 A D MANGELSDORFF

UNCLASSIFIED

HCSD-76-002R

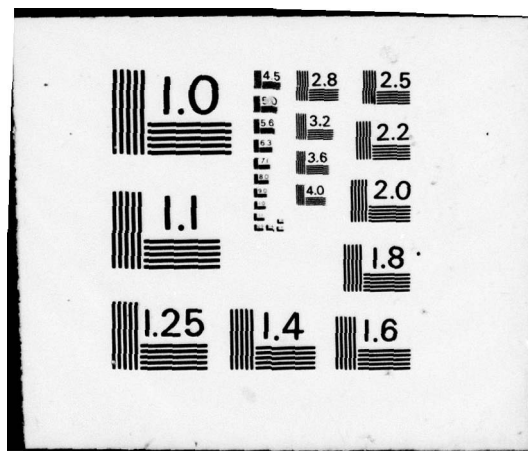
NL

1 of 1
ADA035405



END

DATE
FILMED
3 - 77



Report 76-002R

ADA035405

2
NW

DENTAL THERAPY ASSISTANT: EXPECTATIONS, PREFERENCES, AND REALITY

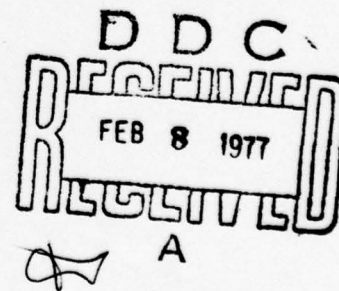
A. David Mangelsdorff, Ph.D.
Health Care Studies Division
Academy of Health Sciences, United States Army
Fort Sam Houston, Texas 78234

March 1976

Final Report

COPY AVAILABLE TO DDC DOES NOT
PERMIT FULLY LEGIBLE PRODUCTION

Approved for public release;
distribution unlimited.



Prepared for:

UNITED STATES ARMY HEALTH SERVICES COMMAND (HSDS-P)
Ft Sam Houston, Texas 78234

Final

20432402

The views of the author are his
own and do not purport to reflect
the position of the Department of
the Army or the Department of Defense.



REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER HCSD-76-002R	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) DENTAL THERAPY ASSISTANT: EXPECTATIONS, PREFERENCES, AND REALITY,	5. TYPE OF REPORT & PERIOD COVERED Final Report July 74 - May 75	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) A. David/Mangelsdorff Ph.D.	8. CONTRACT OR GRANT NUMBER(s)	9. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 12 90 P.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Health Care Studies Division Academy of Health Sciences Ft Sam Houston, Texas 78234	10. CONTROLLING OFFICE NAME AND ADDRESS Commander, US Army Health Services Command ATTN: HSDS Fort Sam Houston, Texas 78234	11. REPORT DATE March 76
11. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	12. NUMBER OF PAGES 85	13. SECURITY CLASS. (of this report) Unclassified
14. DISTRIBUTION STATEMENT (of this Report) Unlimited distribution.	15. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
17. SUPPLEMENTARY NOTES		
18. KEY WORDS (Continue on reverse side if necessary and identify by block number) Dental Therapy Assistants, dentists, job satisfaction, expectations, productivity		
19. ABSTRACT (Continue on reverse side if necessary and identify by block number) A Pilot Study was conducted to develop survey instruments. A Baseline Phase was conducted for 20 consecutive work days at 24 installations. Baseline Phase results were tabulated and Feedback regarding the Baseline Phase findings were sent to 12 installations. Four months later, the Awareness Phase followed at the original 24 installations for another 20-day period. The follow-up Awareness Phase indicated significant increases in the		

work DTAs performed on primarily Restorative and Preventive tasks. It appeared that the methodology of Awareness Phase resulted in the convergence of the DTAs' expectations, preferences, and work accomplished with the dentists' expectations for the DTAs. There was not an overall significant difference between the F ratios in the Feedback and No Feedback conditions.

The DTAs in Awareness Phase were significantly more satisfied with their SUPERVISOR (team dentist) than in Baseline Phase. The Ten-to-Eighteen-Month DTAs were significantly less satisfied in Awareness Phase than in Baseline Phase with PROMOTIONS.

The potential areas of conflict were with the Restorative tasks where there were significant differences between the DTAs' actual performances and the dentists' expectations for the DTAs.

SUMMARY

✓ The Army has implemented a program in dental care delivery which consists of dental treatment teams utilizing Dental Therapy Assistants (DTAs). The primary purpose of the present study was to look for overall conflicts between DTAs' attitudes and performance compared with the dentists' expectations. A second purpose was to determine the effects of providing Feedback (the results of how frequently a variety of tasks had been performed) on the Job Satisfaction, attitudes, and performance of the DTAs.

↗ A Pilot Study was conducted to develop survey instruments. Phase I (Baseline Phase) was conducted for 20 consecutive work days at 24 installations. Baseline Phase results were tabulated and Feedback regarding the Baseline Phase findings was sent to 12 installations. Four months later Phase II (Awareness Phase) followed at the original 24 installations for another 20-day period.

The follow-up Awareness Phase indicated significant increases in the work DTAs performed on primarily Restorative and Preventive tasks. It appeared that the methodology of Awareness Phase resulted in the convergence of the DTAs' expectations, preferences, and work accomplished with the dentists' expectations for the DTAs. There was not an overall significant difference between the F ratios in the Feedback and No Feedback conditions.

The Job Satisfaction measures indicated that the DTAs in Awareness Phase were significantly more satisfied with their SUPERVISOR (team dentist) than in Baseline Phase. Of all the DTAs surveyed, the Ten-to-Eighteen-month DTAs were significantly less satisfied with PROMOTIONS. Overall, the DTAs were significantly less satisfied in Awareness Phase than in Baseline Phase with PROMOTIONS.

The potential areas of conflict were with the Restorative tasks where there were significant differences between the DTAs' actual performances and the dentists' expectations for the DTAs. Several of the Other tasks may also be considered potentially conflict-producing.

White Section		<input checked="" type="checkbox"/>
Buff Section		<input type="checkbox"/>
DISTRIBUTION/AVAILABILITY CODES		<input type="checkbox"/>
Dist. AVAIL. and/or SPECIAL		
A		

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
REPORT DOCUMENTATION PAGE.	1
SUMMARY.	11
TABLE OF CONTENTS.	iv
1. INTRODUCTION.	1
a. Purpose	1
b. Background.	1
2. OBJECTIVES.	3
3. METHODOLOGY	3
a. Overview.	3
b. Procedures.	3
4. FINDINGS.	5
5. DISCUSSION.	8
6. CONCLUSIONS	10
7. RECOMMENDATIONS	111
8. REFERENCES.	12
 <u>TABLES</u>	
1. Demographic Information on DTAs	14
2. Overall DTA Responses (Actual Performances):.	15
Phase I vs Phase II	
3. DTA Expectations: Phase I vs Phase II.	16
4. DTA Preferences: Phase I vs Phase II	17
5. Dentists' Expectations: Phase I vs Phase II.	18
6. DTA Responses(Actual Performance): Feedback vs No Feedback. 19	
7. DTA Responses(Expectations): Feedback vs No Feedback. . . . 20	

8.	DTA Responses(Preferences): Feedback vs No Feedback. . . .	21
9.	Dentists' Expectations: Feedback vs No Feedback.	22
10.	Dentists' Expectations for Frequency of Performance. . . .	23
	in Phase I	
11.	Dentists' Expectations for Frequency of Performance. . . .	24
	in Phase II	
12.	Means for Demographic and Satisfaction(Job Descriptive . .	25
	Index) Values Broken Down by DTAs' Level-of-Training in	
	Phase I	
13.	Means for Demographic and Satisfaction(Job Descriptive . .	26
	Index) Values Broken Down by DTAs' Level-of-Training in	
	Phase II	
14.	Means and Comparison Between Phase I vs Phase II	27
	Satisfaction Measures	
15.	Means and Comparison Between Demographic and Satisfaction. 28	
	(Job Descriptive Index) Values for Feedback vs No	
	Feedback Conditions in Phase II	
16.	Summary of F ratios (of differences between DTAs'.	29
	Expectations, Preferences, Actual 10-day Performance With	
	Dentists' Expectations) Between Phase I and Phase II and	
	Significant Differences	
17.	Selection of Studies Using JDI Satisfaction (mean levels). 32	

APPENDICES

A.	Pilot Study.	33
B.	Phase I (Baseline Phase)	40
C.	Feedback Letter to 12 Posts.	50
D.	Phase II (Awareness Phase)	52
E.	Descriptive Statistics for Baseline Phase.	63
F.	Descriptive Statistics for Awareness Phase	67
G.	DTA Demographic and Satisfaction Measures by Post and. . .	77
	Level-of-Training	

DENTAL THERAPY ASSISTANT: EXPECTATIONS, PREFERENCES, AND REALITY

1. INTRODUCTION.

a. Purpose. The purpose of the present study was to look for overall conflicts between the dentists' attitudes (expectations) and the dental therapy assistants' (DTAs) attitudes and/or performance. There was an interest in determining which tasks DTAs actually perform in their work. It was felt that providing this information to both the DTAs and the dentists working with the DTAs would allow the DTAs to judge their own performance. The information could be used in the local post DTA Program of Instruction for orienting new DTAs to allow the DTAs to have realistic expectations about how they will be utilized. In addition, new dentists who work with DTAs would be able to set realistic work goals if informed of the productivity of DTAs as a function of the experience of comparably-trained DTAs.

b. Background.

(1) A new program has been implemented in US Army dental care delivery, one which consists of dental treatment teams utilizing dental therapy assistants (DTAs). The dental therapy assistant is an Army-trained dental assistant/oral hygienist, who is further trained to perform a variety of tasks (which were previously only performed by dentists) under the direct supervision of a dentist. Both the dentists and the DTAs bring into the program varying expectations and preferences. Where there are significant differences between the expectations and actual performance and/or differences between preferences and actual tasks, conflicts may develop which may result in less than optimal team effectiveness.

(2) Heid and Bair (1973) surveyed 699 Army dentists on their attitudes toward expanded-duty assistants (EDAs). A majority of the Army dentists favored delegation of duties such as placement and finishing of restorative materials. The dentists were unwilling to allow irreversible procedures or certain procedures in the area of diagnosis to be performed by assistants. The utilization of EDAs was expected to result in improvement of the effectiveness of the Army dental care program.

(3) Douglas and Stacey (1972) reviewed statewide surveys conducted in Minnesota, Georgia, and North Carolina of dentists' opinions toward duties performed by auxiliaries. A majority of all respondents were in favor of delegating particular tasks to assistants, though the consensus was that the tasks of condensing amalgam, placing silicate and resin, and composite restorations should continue to be performed by dentists. While there was general acceptance of the expanded roles for auxiliaries, there was concern with the extent to which the auxiliaries would be employed.

(4) Among private practitioners in general, recently graduated dentists were most willing to delegate new duties to auxiliaries (Martens et al, 1971). Surveys of dental students showed support for the expanded roles of assistants (Dorfman et al, 1971; Brearley et al, 1972).

(5) Heid (1973) studied the effects of Army dental care programs composed of one dentist, one basic assistant, and one dental treatment room (DTR) which were augmented with dental therapy assistants (DTAs) and additional dental treatment rooms. The additional DTAs and DTRs very significantly increased team effectiveness over baseline measures.

(6) Brearley and Rosenblum (1972) compared the performances of dental assistants with senior dental students on certain procedures. The dental assistants were equally capable of performing the delegated procedures without loss of quality and within acceptable time limits.

(7) Goodstadt (1974) stated that the entry phase of an individual's socialization into a new organization deals with reality testing of initial expectations. Wanous (1973) and Graen (1974) have documented that unrealistic expectations lead to dissatisfaction, disillusionment, and a lessened feeling of attachment to the organization. The extent of the expectancy disconfirmation has its effect on retention of the individual within the organization. Wanous (1973) showed that realistic job previews produced more realistic job expectations and higher job survival in newly hired female telephone operators.

(8) Scott (1972) reported that job expectancy is an important factor in labor turnover. Employees often terminate their jobs because they lack the opportunity to achieve what they had expected to when hired. Adequate orientation programs reduce unnecessary expenditures of time and money on new employees whose jobs do not provide the anticipated satisfaction.

(9) Fox, Diamond, and Walsh (1960) reported on the situations which student nurses had indicated as stressful and satisfying, including those elements in the nursing school situation to which students alleged their withdrawal was due. Students who disliked nursing indicated it was not what they had expected. Katzell (1968) found that for a large number of first year nursing students there was a low but significant negative correlation between withdrawal and confirmation of expectations, especially with respect to satisfactions.

(10) Prybil (1973) found that there was a low but positive relationship between job satisfaction and job performance. Job satisfaction is positively related to occupations, with higher percentages of satisfied workers found among professionals and businessmen.

(11) In a study of why physicians stay in the Army, Baker (1969) found that in the group of physicians planning to leave the service, less than one quarter had received much career information, and over one third felt poorly utilized as professionals. Of those who planned to remain in the Army the major reason was job satisfaction, followed by liking the military. Of numerous recommendations made for improving physician retention, one was that an effective information program be established.

2. OBJECTIVES. The study objectives to be accomplished are:

a. To identify potential areas of harmony and conflict between the expectations, job preferences, actual performance, and feelings of job satisfaction of DTAs compared with the expectations of the dentists working with the DTAs.

b. To determine whether providing feedback to both the dentists and DTAs will converge the expectations and performance.

3. METHODOLOGY.

a. Overview. The general methodology was to employ a pilot study of a survey instrument followed by on-site interviews with the DTAs and dentists to fine-tune survey instruments and instructions. In two separate phases, survey instruments were mailed to 24 installations to collect attitude and actual workload data from DTAs and dentists. Phase I (Baseline Phase) was conducted for 20 consecutive work days at 24 installations. Baseline Phase results were tabulated and Feedback regarding the Baseline Phase findings was sent to 12 installations. Four months later, Phase II (Awareness Phase) followed at the original 24 installations for another 20-day period.

b. Procedures.

(1) A pilot study was conducted at Ft Dix, New Jersey from 21 June to 19 July 1974 to test the survey instruments and adequacy of the instructions. Appendix A contains the pilot study survey instruments. The 20-day recording period employed 20 daily worksheets (34), three administrations of both the Expectations and Preferences Survey (35), and the Job Descriptive Index (JDI) (36). On the first day of the survey the dentists working with the DTAs were also asked what they expected the DTAs to accomplish in an ensuing 10-day period (37). The instructions (38-39) and study materials were distributed by the Resources Training Officer at Ft Dix. Follow-up on-site interviews with all DTAs (N=10) and the dentists (N=6) working with the DTAs were conducted from 20 July to 28 July 1974. Interviews were structured to fine-tune the measuring instruments and instructions.

(2) The Baseline Phase was conducted from 4 October to November

1974 at 24 Continental United States (CONUS) installations training dental therapy assistants. Each DTA had his own packet of survey materials. The survey instruments included 20 daily worksheets (41) for recording the daily frequency of performance of a list of procedures which can be accomplished by a DTA; three copies of an attitude inventory to assess for a 10-day period the frequency each of the procedures was expected to be performed and how frequently the procedures were preferred to be accomplished (42); and three copies of the Job Descriptive Index (43). The attitude inventory and JDI were both administered on the first, tenth, and last day of the recording period for each DTA. The attitude scores were averaged for each task to determine trait measures of expectations and preferences; in addition, the subscales of the JDI were averaged to determine trait measures of job satisfaction for each DTA. Trait measures describe general attitudes or values (the mean of all state or situational attitudes). The military dentists working with the DTAs were given the same list of tasks and (on the first day of the survey) asked how many procedures they expected a DTA to accomplish for a 10-day period (44). The study materials and instructions (45-49) were distributed and monitored by the Dental Therapy Assistant, Resources Training Officer at each installation. Following the completion of the 20-day recording period, the study materials were sent back to Health Care Studies Division for compilation and analysis.

(3) Baseline Phase data was compiled and analyzed using a 10-day base. The tasks were broken down into four categories: Restorative, Preventive, Indirect Patient Care, and Other procedures. The DTAs' actual work accomplished was converted to a 10-day base (work x 10/average number of days worked out of two 10-day periods). For example, a DTA may have performed task R1 (Place rubber dam) 22 times in the first 10 days and 18 times in the next 10 days. This averages to 20 occasions R1 was accomplished. However, the DTA worked only 9 days of the first 10 days and 7 days of the next 10 days (averaging to 8 days). The work for a 10-day base would equal 20 performances multiplied by (10 ideal days/average 8 actual days) = 25.

(4) Baseline Phase data from 12 of the installations was compiled. Of the 24 posts, feedback was sent to 12 even-numbered installations derived from a list of all posts in the Continental United States (CONUS). In March 1975 each of the 12 installations was sent a summary report of the Baseline Phase data from their installation. Copies of the summary report were provided to all the DTAs and the dentists working with the DTAs, at the 12 installations. Appendix C contains a copy of the feedback letter.

(5) Phase II (Awareness Phase) began the end of March 1975 and continued (for some of the 24 installations) into May 1975. Each DTA had his own packet of study materials. The survey instruments included 20 daily worksheets (53) for recording the daily frequency of performance of a list of procedures; an attitude inventory to assess

for a 10-day period the frequency each of the procedures was expected to be accomplished and how frequently the procedures were preferred to be accomplished (54); and the Job Descriptive Index (55). The attitude inventory and JDI were administered on the first, tenth, and last day of the recording period for each DTA. On the first day of the recording period, the military dentists were given an expectation sheet for the performance of a DTA for a 10-day period (56). Following the completion of the survey, the materials were sent back to Health Care Studies Division for analysis.

(6) A total of 306 of 358 DTAs were surveyed in the Baseline Phase and 277 of 358 DTAs surveyed in the Awareness Phase. Table 1 summarizes the demographic data on the DTA samples. There were 130 of 181 dentists who responded in the Baseline Phase and 141 of 181 dentists in the Awareness Phase.

4. FINDINGS.

a. For each task, descriptive statistics (mean and standard deviation) were calculated for 10-day base periods to summarize the DTAs' actual performance, preferences, and expectations as well as the dentists' expectations for the DTAs. Appendix E depicts the overall summary of the 23 installations responding in Baseline Phase (85% of DTAs and 72% of dentists). Appendix F displays the overall results of the 23 responding installations from the Awareness Phase (77% of DTAs and 78% of dentists). One post (the same in the Baseline Phase and the Awareness Phase) did not respond.

b. Comparisons were made between the results obtained in the Baseline Phase with those of the Awareness Phase. The comparisons relating the DTAs' performance include:

(1) Actual performance accomplished for 10-day base showed a significantly greater amount of work accomplished ($p < .05$) in the Awareness Phase for 6 of 12 Restorative tasks, 4 of 7 Preventive tasks, 2 of 12 Indirect Patient Care tasks, and 2 of 20 Other tasks. Table 2 summarizes the comparison between the Baseline Phase and the Awareness Phase.

(2) The DTAs' expectations for work to be accomplished for a 10-day base showed a significantly greater amount of work expected to be accomplished ($p < .05$) in the Awareness Phase on 4 of 12 Restorative, 5 of 7 Preventive, and 1 of 20 Other tasks. There was 1 Indirect Patient Care task which had a significant decrease in Awareness Phase expectations. Table 3 summarizes the comparison between the Baseline Phase and the Awareness Phase.

(3) The overlap of significant differences ($p < .05$) between the Baseline Phase and Awareness Phase results between the DTAs' expectations and actual performance accomplished showed an overlapping of 4 of 12 Restorative tasks and 4 of 7 Preventive tasks.

(4) The DTAs' preferences for work to be accomplished for a 10-day base showed a significantly greater amount of work preferred to be accomplished ($p < .05$) in the Awareness Phase on 1 of 12 Restorative tasks. Table 4 summarizes the comparison between the Baseline Phase and the Awareness Phase results.

(5) The dentists' expectations for the work to be accomplished by the DTAs showed significantly more work to be accomplished ($p < .05$) in the Awareness Phase than in the Baseline Phase for 2 of 20 Other tasks. Significantly greater work was expected ($p < .05$) in the Baseline Phase than in the Awareness Phase for 2 of 12 Restorative tasks. Table 5 summarizes the comparison between the Baseline Phase and the Awareness Phase.

c. Comparisons were made between the results obtained in the Feedback condition of the Awareness Phase with the No Feedback condition of the Awareness Phase. The comparisons relating the DTAs' performance include:

(1) Actual performance accomplished for a 10-day base period showed a significantly greater amount of work performed ($p < .05$) in the Feedback condition for 1 of 12 Restorative, 2 of 7 Preventive, 1 of 12 Indirect Patient Care, and 2 of 20 Other tasks. Significantly greater work was accomplished ($p < .05$) in the No Feedback condition for 1 of 12 Restorative and 1 of 12 Indirect Patient Care tasks. Table 6 summarizes the comparison between the Feedback and the No Feedback conditions.

(2) The DTAs' expectations for work to be accomplished for a 10-day base showed a significantly greater amount of work expected to be accomplished ($p < .05$) in the Feedback condition for 2 of 12 Preventive and 2 of 20 Other tasks. Significantly more work was expected ($p < .05$) in the No Feedback condition for 2 of 12 Restorative and 1 of 12 Indirect Patient Care tasks. Table 7 summarizes the comparison between the Feedback and No Feedback conditions.

(3) The overlap of significant differences ($p < .05$) between Feedback and No Feedback results between the DTAs' expectations and actual performance accomplished showed an overlapping of 1 of 12 Restorative, 2 of 7 Preventive, 1 of 12 Indirect Patient Care, and 1 of 20 Other tasks.

(4) The DTAs' preferences for work to be accomplished for a 10-day base showed a significantly greater amount of work preferred to be accomplished ($p < .05$) in the Feedback condition for 2 of 7 Preventive, 1 of 12 Indirect Patient Care, and 2 of 20 Other tasks. Significantly more work was preferred ($p < .05$) in the No Feedback condition for 1 of 12 Restorative tasks. Table 8 summarizes the comparison between the Feedback and the No Feedback conditions.

(5) The dentists expected significantly more work to be accomplished ($p < .05$) by the DTAs as a result of Feedback on 1 of 12

Restorative, 3 of 7 Preventive, 2 of 12 Indirect Patient Care, and 2 of 20 Other tasks. On 1 of 12 Restorative tasks, the dentists in the No Feedback condition expected significantly greater productivity ($p < .05$) of the DTAs. Table 9 summarizes the comparison between the Feedback and No Feedback conditions.

d. Frequency tabulations of the dentists' expectations for the DTAs' performance were made for both the Baseline Phase and for the Awareness Phase. Restorative tasks were expected to be performed very frequently (in general), followed by Preventive tasks. Relatively few Indirect Patient Care and Other tasks were expected to be performed very frequently. Table 10 and Table 11 summarize the frequency expectations of the dentists.

e. The DTAs' job satisfaction levels were broken down by Level-of-Training. In the Baseline Phase results, there were no significant differences on the dependent variables except for PROMOTIONS broken down by Level-of-Training. The Ten-to-Eighteen-month group was significantly more dissatisfied with PROMOTIONS ($p < .002$). Table 12 summarizes the Baseline Phase satisfaction measures. In the Awareness Phase satisfaction measures, the Ten-to-Eighteen-month group was again significantly more dissatisfied with PROMOTIONS ($p < .041$). There were no other significant differences as a function of Level-of-Training. Table 13 summarizes the Awareness Phase results. A comparison between the Baseline Phase and the Awareness Phase results overall indicated significant differences between the Baseline Phase and the Awareness Phase responses to SUPERVISOR ($p = .037$) with the Awareness Phase responses being significantly more satisfied. Overall, DTAs reported being significantly less satisfied with PROMOTIONS ($p = .004$) in the Awareness Phase. Table 14 summarizes the comparisons between the Baseline Phase and the Awareness Phase satisfaction indices.

f. A comparison between the Feedback and No Feedback conditions of the Awareness Phase revealed no significant differences on any of the satisfaction variables. Table 15 displays the results.

g. The individual posts were broken down by DTAs' Level-of-Training in the Baseline Phase and the Awareness Phase for the demographic data and satisfaction measures. Appendix G contains the summary data for each post on the demographic data and satisfaction measures broken down by Level-of-Training.

h. A comparison was made of the dentists' expectations for the procedures to be accomplished by the DTAs broken down by the dentists' experience working with the DTAs in the Awareness Phase. Of the tasks analyzed, overall there was not a significant difference between dentists' expectations as a function of their work experience with DTAs. Only on task 03 "Place tissue conditioning materials" was there a significant difference between groups with the most experienced dentists (24 and more months working with the DTAs) having significantly higher expectations.

1. A comparison of the dentists' expectations for the DTAs broken down by the years since the dentists graduated from dental school showed no overall significant differences between the dentists' expectations in the Awareness Phase. There was not a significant difference for the expected patients seen either.

5. DISCUSSION.

a. A fundamental question to be addressed was how well the DTAs' expectations and preferences converged with the DTAs' actual performance and with the dentists' expectations for the DTAs. Each task was analyzed by a one-way analysis of variance (ANOVA) (Table 16 summarizes the results). There were significant differences on many of the tasks in the Baseline Phase for several reasons: (1) the large number of respondents in each cell amplify small differences between the means, (2) the DTAs' unfamiliarity with estimating the number of procedures for a 10-day time frame may have caused unrealistic predictions, (3) the overestimation by some new dentists who had little or no experience with DTAs (thus no comparison level from which to judge), and (4) the possible misinterpretation by some dentists of the instruction to estimate procedures for one rather than total procedures for all DTAs with whom the dentist worked. The follow-up Awareness Phase was intended to assess (a) how DTAs' performances had increased because of additional work experience, (b) the DTAs' greater familiarity with the recording surveys, (c) the dentists' familiarity with the survey instrument. In addition, half of the posts were provided with Feedback on the Baseline Phase results, to determine whether the Feedback would further converge the DTAs' attitudes and performance with the dentists' expectations for the DTAs.

b. The comparison between Baseline Phase and Awareness Phase results indicated significant increases in work performed in the Awareness Phase on primarily Restorative and Preventive tasks (see Table 2). Overall, significantly more patients were seen in the Awareness Phase. This increase in work accomplished could be accounted for by the increase in field experience of the DTAs. Comparison of the productivity accomplished in the Baseline Phase vs the Awareness Phase for the 10-18 month DTAs indicated significant increases in the Awareness Phase productivity for 4 Preventive procedures. There were significantly more total patients seen by the 10-18 month DTAs in the Awareness Phase ($p = .035$). In addition, the 10-18 month DTAs reported working without chairside assistance on significantly more patients in the Awareness Phase ($p = .023$), indicating greater independence. The 4-9 month DTAs were assisted significantly more full-time by chairside assistants in the Awareness Phase ($p = .012$) and saw significantly more total patients in the Awareness Phase ($p = .003$). The In Training-to-3-month DTAs reported significantly greater numbers of Restorative procedures (six) in the Awareness Phase and in working without chairside assistance on significantly more patients in the Awareness Phase ($p = .030$). However, there was no significant difference between the Baseline Phase and the Awareness Phase for the total number of patients

seen by the In Training-to-3-month group of DTAs. The overall increase in patients seen in the Awareness Phase could be because more patients presented themselves for treatment in the Spring than in the Fall.

The increased work productivity in the Awareness Phase lead to increased expectations of DTA workload (the overlap between the DTAs' expectations and actual work accomplished in Restorative and Preventive tasks). The magnitude of the F ratios comparing the Baseline Phase differences (DTAs' expectations vs preferences vs actual vs dentists' expectations) with the F ratios for the Awareness Phase No Feedback and the Awareness Phase Feedback showed a significant decrease. There was not a significant difference between the Feedback vs the No Feedback F ratios. An analysis of the F ratios for Baseline Phase, Feedback Awareness Phase, and No Feedback Awareness Phase indicated: (a) overall the Baseline Phase had significantly greater F ratios than either of the Awareness Phase conditions ($p < .002$); (b) the Baseline Phase had significantly greater F ratios ($p < .05$) than either of the Awareness Phase conditions for Preventive, Indirect Patient Care, or Other tasks. The convergence of the F ratio differences between the DTAs' expectations vs preferences vs actual vs dentists' expectations in the Awareness Phase did not appear to be a function of Feedback. Rather, the convergence appeared to be a function of repeating the methodology. Perhaps respondents were more aware of what was being asked and took more time (and thought) into calculating their performance and expectation estimates in the Awareness Phase.

c. The specific tasks on which the F ratios for differences between DTAs' expectations vs preferences vs actual vs dentists' expectations were highly significant ($F \geq 10$) included:

- R1 Place rubber dam
- R2 Place amalgam restoration
- R3 Place composite restoration
- R8 Place matrix retainer or celluloid strip
- R9 Place sedative/temporary filling
- 05 Take primary impression
- 06 Place/remove periodontal pack
- 013 Construct/place temporary splints
- 014 Pre- and post-operative instructions
- 015 Suture removal
- 016 Management of dry socket
- Total number of patients seen

These tasks, particularly the Restorative ones, are potential areas for conflict. Because the DTAs are being trained to perform primarily Restorative procedures, where there are significant differences between the DTAs' actual performances and the dentists' expectation for the DTAs, the dentists may express dissatisfaction with the DTAs.

d. The DTAs' job satisfaction levels were higher (as measured by the JDI) than reported for other populations (see Table 17). Locke (1970)

suggests that satisfaction is primarily a result of performance. Wanous (1974) further suggests the type of satisfaction, work experience of the individuals, and the type of job situation must also be considered in any discussion of attitudes and performance.

e. The DTAs' overall level of satisfaction with SUPERVISOR indicated an increase in satisfaction in the Awareness Phase compared with the Baseline Phase (p - 037). It is possible that the DTAs' increased performance in the Awareness Phase was reinforced by praise from the dentists who had more experience (in the Awareness Phase) working with DTAs. The discrepancies between the dentists' expectations and the DTAs' actual performances do not seem to have been communicated by the dentists to the DTAs; or, that the subscale of the JDI does not assess that particular aspect of satisfaction toward the SUPERVISOR.

f. The Ten-to-Eighteen-month DTAs were significantly less satisfied with PROMOTIONS. Overall DTAs were significantly more dissatisfied in the Awareness Phase than in the Baseline Phase (p 004). When civilian DTAs graduate from training, they are promoted to GS-5; from GS-5 there is less opportunity for advancement. The In-Training-to-Three-month DTAs have promotions to look forward to and report relatively greater satisfaction toward PROMOTIONS. There are relatively few GS-6 positions, and depending upon local post policy, promotions may not be available. Without the incentive of promotions, a greater probability of DTAs leaving their job might be expected.

6. CONCLUSIONS.

a. As presently operating, the Army's Dental Therapy Assistant Program tends to permit conflicts to develop between the dentists' expectations, the DTAs' actual performance, and the DTAs' expectations and preferences for how DTAs will be utilized.

b. The use of a survey instrument designed to assist awareness can be expected to result in a significant reduction in the difference between the DTAs' preferences, expected performance, and the DTAs' actual performance. In addition, there will be an improved working relationship between the DTAs and the dentist (team supervisor).

c. The use of a survey instrument designed to assist awareness can be expected to result in a significant reduction in the difference between the DTAs' actual performance and the dentists' expectations for the DTAs. The potential areas of conflict are with the Restorative tasks where there were significant differences between the DTAs' actual performances and the dentists' expectations for the DTAs for tasks: R1 Place rubber dam; R2 Place amalgam restoration; R3 Place composite restoration; R8 Place matrix retainer or celluloid strip; and R9 Place sedative/temporary filling. Several Other tasks were also considered potentially conflict-producing: 05 Take primary impression; 06 Place/remove periodontal pack; 013 Construct/place temporary splints; and 014 Pre- and post-operative instructions.

d. Overall, the DTAs' job satisfaction levels were very high, higher than those found in populations of comparable sex, age, and educational levels.

e. The DTAs expressed significant concern about career development, particularly promotion potential.

f. There appears to be no significant increase in awareness from returning pooled results of locally administered surveys, though no harmful effects were observed.

7. RECOMMENDATIONS.

a. Recommend all incoming DTAs be provided with realistic expectations as to how DTAs are employed. This can be accomplished by an initial survey to determine the new DTAs' expectations and also ask the DTAs to keep a record of the work accomplished. Following the initial survey, a repetition of the survey and recording period will serve to make the new DTAs aware of how and to what extent their performances are utilized.

b. Recommend all incoming DTAs be informed of promotion policies early in their career, and as part of recruiting.

c. Recommend all new dentists working with DTAs be provided with realistic expectations as to how DTAs are employed. This can be accomplished by an initial survey of the new dentists' expectations, followed at a later time by a follow-up survey to help facilitate the awareness of the dentists as to how and to what extent DTAs are used.

d. Recommend as part of dental corps officer basic training, all dentists be informed of the DTA program and to what extent DTAs are employed.

e. Recommend the results of this report be made available to all posts using DTAs and to all facilities training DTAs.

8. REFERENCES.

- a. Baker, F.W., Why Do Doctors Stay in the Army?, Military Medicine, 134: 192-99, 1969.
- b. Brearley, L.J. and Rosenblum, F.N., Two-year Evaluation of Auxiliaries Trained in Expanded Duties, Journal of American Dental Association, 84: 600-10, 1972.
- c. Dorfman, R.L., Kreity, L.H., and Podshadley, D.W., Dental Student Attitudes Toward Expanded Duties of Dental Assistants, Journal of Dental Education, 35: 220, 1971.
- d. Douglas, C.W. and Stacey, D.C., Public and Professional Acceptance of Auxiliaries, Journal of Public Health Dentistry, 32: 58-60, 1972.
- e. Fox, D.J., Diamond, L.K., and Walsh, R.C., Satisfying and Stressful Situations in Basic Programs in Nursing Education, New York: Institute of Research and Service in Nursing Education, Teachers College, Columbia University, 1960.
- f. Graen, G., Role Making Processes and Administration, presented at American Psychological Association, New Orleans, 1974.
- g. Goodstadt, B.E., The Socialization of Civilians Entering Military Organizations, presented at American Psychological Association, New Orleans, 1974.
- h. Heid, T.H., Dental Therapy Assistant: Effect on Team Productivity, Health Care Studies Division Report No. 7, January 1973.
- i. Heid, T.H. and Bair, J.H., Expanded-duty Assistants; Attitudes of Army Dentists, Journal of American Dental Association, 87: 872-77, 1973.
- j. Katzell, M.E., Expectations and Dropouts in Schools of Nursing, Journal of Applied Psychology, 52(2): 154-57, 1968.
- k. Locke, E.A., Job Satisfaction and Job Performance: A Theoretical Analysis, Organizational Behavior and Human Performance, 5: 484-500, 1970.
- l. Martens, L.V., Meskin, L.H., and Proskek, J.M., New Dental Care Concepts: Perceptions of Dentists and Dental Students, American Journal of Public Health, 61: 2188, 1971.
- m. Prybil, L.D., Job Satisfaction in Relation to Job Performance and Occupational Level, Personnel Journal, 52: 94-100, 1973.
- n. Scott, R.D., Job Expectancy - An Important Factor in Labor Turnover, Personnel Journal, 51: 360-3, 1972.

- o. Smith, P.C., Kendal, L.M., and Huling, C.L., The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes, Chicago: Rand McNally, 1969.
- p. Wanous, J.P., Effects of a Realistic Job Preview in Job Acceptance, Job Attitudes, and Job Survival, Journal of Applied Psychology, 58: 327-332, 1973.
- q. Wanous, J.P., A Causal-Correlational Analysis of Job Satisfaction and Performance Relationship, Journal of Applied Psychology, 59: 139-144, 1974.

TABLE 1

Demographic Information on DTAs

PHASE I		PHASE II
<u>Number</u>	<u>Level-of-Training</u>	<u>Number</u>
162	In Training- to -Three-months	75
36	Four-to-Nine-months	83
107	Ten-to-Eighteen-months	116
<u>1</u>	<u>Others</u>	<u>3</u>
306	Total	277
	<u>Military - Civilian Status</u>	
23	Military DTAs	24
280	Civilian DTAs	251
3	Unidentified Others	2
	<u>Sex Breakdown</u>	
38	Male	35
266	Female	242
2	Unidentified	0

TABLE 2

**Overall DTA Responses (Actual Performances)
Phase I vs Phase II**

Sample mean differences and level of significance from F tests. NS indicates no significant difference between means.

I. RESTORATIVE TASKS			
1. Place rubber dam	NS	9. Expose, process, or mount periapical radiographs	NS
2. Place amalgam restoration	2>1 (0002)	10. Expose, process, or mount panoramic radiographs	NS
3. Place composite restoration	NS	11. Administrative duties (acting as NCOIC)	NS
4. Place resin restoration	2>1 (0001)	12. DTA coordinator duties	NS
5. Polish restoration	2>1 (028)	IV. OTHER TASKS	
6. Place intermediate base	2>1 (0001)	1. ANUG management	NS
7. Place pulp capping material	NS	2. Pack gingival retraction cord	NS
8. Place matrix retainer/celluloid strip	2>1 (0001)	3. Place tissue conditioning materials	NS
9. Place sedative/temporary filling	NS	4. Prosthodontic-select shade/shape of teeth	NS
10. Construct/place temporary crown	NS	5. Take primary impression	NS
11. Insert permanent bridge	NS	6. Place/remove periodontal pack	NS
12. Adjust restoration occlusion	2>1 (017)	7. Post-operative periodontal debridement	NS
II. PREVENTIVE TASKS			
1. Prophylaxis	2>1 (032)	8. Test for tooth vitality	NS
2. Topical fluoride application	NS	9. Irrigate/dry root canal	NS
3. Hand scaling	2>1 (0002)	10. Medicate root canal	NS
4. Oral disease control (Patient education)	2>1 (001)	11. Place/remove root canal seal	NS
5. Pit and fissure sealing technique	NS	12. Construct/place orthodontic appliances	NS
6. Cavitron	2>1 (0002)	13. Construct/place temporary splints	NS
7. Community & military prevention (Phase I)	NS	14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	NS
III. INDIRECT PATIENT CARE TASKS			
1. Dental assistant duties	NS	15. Suture removal	NS
2. Sterilization techniques	NS	16. Management of dry socket	NS
3. Prescription writing	NS	17. Administer basic resuscitative measures	NS
4. Pour and trim study model	NS	18. Obtain patient's pulse	2>1 (001)
5. Examine/chart existing restorations	2>1 (005)	19. Obtain patient's blood pressure	NS
6. Appointment scheduling	NS	20. Obtain patient's temperature	2>1 (01)
7. Review patients dental/medical history	2>1 (002)	Total patients seen	2>1 (0001)
8. Expose, process, or mount bite-wing radiographs	NS		

TABLE 3

DTA Expectations
Phase I vs Phase II

Sample mean differences and level of significance from F tests. NS indicates no significant difference between means.

I. RESTORATIVE TASKS				
1. Place rubber dam	NS		9. Expose, process, or mount periapical radiographs	NS
2. Place amalgam restoration	2>1	(028)	10. Expose, process, or mount panoramic radiographs	NS
3. Place composite restoration	NS		11. Administrative duties (acting as NCOIC)	NS
4. Place resin restoration	NS		12. DTA coordinator duties	NS
5. Polish restoration	2>1	(002)	IV. OTHER TASKS	
6. Place intermediate base	2>1	(021)	1. ANUG management	NS
7. Place pulp capping material	NS		2. Pack gingival retraction cord	NS
8. Place matrix retainer/celluloid strip	2>1	(035)	3. Place tissue conditioning materials	NS
9. Place sedative/temporary filling	NS		4. Prosthodontic-select shade/shape of teeth	NS
10. Construct/place temporary crown	NS		5. Take primary impression	NS
11. Insert permanent bridge	NS		6. Place/remove periodontal pack	NS
12. Adjust restoration occlusion	NS		7. Post-operative periodontal debridement	NS
II. PREVENTIVE TASKS			8. Test for tooth vitality	NS
1. Prophylaxis	2>1	(016)	9. Irrigate/dry root canal	NS
2. Topical fluoride application	2>1	(005)	10. Medicate root canal	NS
3. Hand scaling	2>1	(007)	11. Place/remove root canal seal	NS
4. Oral disease control (Patient education)	2>1	(025)	12. Construct/place orthodontic appliances	NS
5. Pit and fissure sealing technique	NS		13. Construct/place temporary splints	NS
6. Cavitron	2>1	(026)	14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	NS
7. Community & military prevention (Phase I)	NS		15. Suture removal	NS
III. INDIRECT PATIENT CARE TASKS			16. Management of dry socket	NS
1. Dental assistant duties	NS		17. Administer basic resuscitative measures	NS
2. Sterilization techniques	1>2	(043)	18. Obtain patient's pulse	NS
3. Prescription writing	NS		19. Obtain patient's blood pressure	2>1 (032)
4. Pour and trim study model	NS		20. Obtain patient's temperature	NS
5. Examine/chart existing restorations	NS		Total patients seen	
6. Appointment scheduling	NS		2>1 (002)	
7. Review patients dental/medical history	NS			
8. Expose, process, or mount bitewing radiographs	NS			

TABLE 4

DTA Preferences
Phase I vs Phase II

Sample mean differences and level of significance from F tests. NS indicates no significant difference between means.

I. RESTORATIVE TASKS		
1. Place rubber dam	NS	
2. Place amalgam restoration	2>1 (039)	
3. Place composite restoration	NS	
4. Place resin restoration	NS	
5. Polish restoration	NS	
6. Place intermediate base	NS	
7. Place pulp capping material	NS	
8. Place matrix retainer/ celluloid strip	NS	
9. Place sedative/temporary filling	NS	
10. Construct/place temporary crown	NS	
11. Insert permanent bridge	NS	
12. Adjust restoration occlusion	NS	
II. PREVENTIVE TASKS		
1. Prophylaxis	NS	
2. Topical fluoride application	NS	
3. Hand scaling	NS	
4. Oral disease control (Patient education)	NS	
5. Pit and fissure sealing technique	NS	
6. Cavitron	NS	
7. Community & military prevention (Phase I)	NS	
III. INDIRECT PATIENT CARE TASKS		
1. Dental assistant duties	NS	
2. Sterilization techniques	NS	
3. Prescription writing	NS	
4. Pour and trim study model	NS	
5. Examine/chart existing restorations	NS	
6. Appointment scheduling	NS	
7. Review patients dental/medical history	NS	
8. Expose, process, or mount bitewing radiographs	NS	
9. Expose, process, or mount periapical radiographs	NS	
10. Expose, process, or mount panoramic radiographs	NS	
11. Administrative duties (acting as NCOIC)	NS	
12. DTA coordinator duties	NS	
IV. OTHER TASKS		
1. ANUG management	NS	
2. Pack gingival retraction cord	NS	
3. Place tissue conditioning materials	NS	
4. Prosthodontic-select shade/ shape of teeth	NS	
5. Take primary impression	NS	
6. Place/remove periodontal pack	NS	
7. Post-operative periodontal debridement	NS	
8. Test for tooth vitality	NS	
9. Irrigate/dry root canal	NS	
10. Medicate root canal	NS	
11. Place/remove root canal seal	NS	
12. Construct/place orthodontic appliances	NS	
13. Construct/place temporary splints	NS	
14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	NS	
15. Suture removal	NS	
16. Management of dry socket	NS	
17. Administer basic resuscitative measures	NS	
18. Obtain patient's pulse	NS	
19. Obtain patient's blood pressure	NS	
20. Obtain patient's temperature	NS	
Total patients seen	2>1 (028)	

TABLE 5

Dentists' Expectations
Phase I vs Phase II

Sample mean differences and level of significance from F tests. NS indicates no significant difference between means.

SIGNIFICANT DIFFERENCE BETWEEN MEANS:				
I. RESTORATIVE TASKS				
1. Place rubber dam	1>2	(025)	9. Expose, process, or mount periapical radiographs	NS
2. Place amalgam restoration		NS	10. Expose, process, or mount panoramic radiographs	NS
3. Place composite restoration		NS	11. Administrative duties (acting as NCOIC)	NS
4. Place resin restoration		NS	12. DIA coordinator duties	NS
5. Polish restoration		NS	IV. OTHER TASKS	
6. Place intermediate base		NS	1. ANUG management	NS
7. Place pulp capping material		NS	2. Pack gingival retraction cord	NS
8. Place matrix retainer/celluloid strip		NS	3. Place tissue conditioning materials	NS
9. Place sedative/temporary filling		NS	4. Prosthodontic-select shade/shape of teeth	NS
10. Construct/place temporary crown		NS	5. Take primary impression	NS
11. Insert permanent bridge		NS	6. Place/remove periodontal pack	NS
12. Adjust restoration occlusion	1>2	(029)	7. Post-operative periodontal debridement	NS
II. PREVENTIVE TASKS				
1. Prophylaxis		NS	8. Test for tooth vitality	NS
2. Topical fluoride application		NS	9. Irrigate/dry root canal	NS
3. Hand scaling		NS	10. Medicate root canal	NS
4. Oral disease control (Patient education)		NS	11. Place/remove root canal seal	NS
5. Pit and fissure sealing technique		NS	12. Construct/place orthodontic appliances	NS
6. Cavitron		NS	13. Construct/place temporary splints	NS
7. Community & military prevention (Phase I)		NS	14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	NS
III. INDIRECT PATIENT CARE TASKS				
1. Dental assistant duties		NS	15. Suture removal	NS
2. Sterilization techniques		NS	16. Management of dry socket	NS
3. Prescription writing		NS	17. Administer basic resuscitative measures	NS
4. Pour and trim study model		NS	18. Obtain patient's pulse	2>1 (036)
5. Examine/chart existing restorations		NS	19. Obtain patient's blood pressure	2>1 (013)
6. Appointment scheduling		NS	20. Obtain patient's temperature	NS
7. Review patients dental/medical history		NS		
8. Expose, process, or mount bitewing radiographs		NS	Total patients seen	1>2 (002)

TABLE 6

DTA Responses (Actual Performance)
Feedback vs No Feedback

Phase II

Sample mean differences and level of significance from F tests. NS indicates no significant difference between means.

significant difference between means.

<u>I. RESTORATIVE TASKS</u>	
1. Place rubber dam_____	NF>F(001)
2. Place amalgam restoration_____	NS
3. Place composite restoration_____	NS
4. Place resin restoration_____	F>NF(046)
5. Polish restoration_____	NS
6. Place intermediate base_____	NS
7. Place pulp capping material_____	NS
8. Place matrix retainer/ celluloid strip_____	NS
9. Place sedative/temporary filling_____	NS
10. Construct/place temporary crown_____	NS
11. Insert permanent bridge_____	NS
12. Adjust restoration occlusion_____	NS
<u>II. PREVENTIVE TASKS</u>	
1. Prophylaxis_____	NS
2. Topical fluoride application_____	F>NF(01)
3. Hand scaling_____	NS
4. Oral disease control (Patient education)_____	NS
5. Pit and fissure sealing technique_____	NS
6. Cavitron_____	F>NF(012)
7. Community & military prevention (Phase I)_____	NS
<u>III. INDIRECT PATIENT CARE TASKS</u>	
1. Dental assistant duties_____	NF>F(007)
2. Sterilization techniques_____	NS
3. Prescription writing_____	NS
4. Pour and trim study model_____	NS
5. Examine/chart existing restorations_____	F>NF(002)
6. Appointment scheduling_____	NS
7. Review patients dental/medical history_____	NS
8. Expose, process, or mount bite-wing radiographs_____	NS
9. Expose, process, or mount periapical radiographs_____	NS
10. Expose, process, or mount panoramic radiographs_____	NS
11. Administrative duties (acting as NCOIC)_____	NS
12. DTA coordinator duties_____	NS
<u>IV. OTHER TASKS</u>	
1. ANUG management_____	F>NF(023)
2. Pack gingival retraction cord_____	NS
3. Place tissue conditioning materials_____	NS
4. Prosthodontic-select shade/ shape of teeth_____	NS
5. Take primary impression_____	NS
6. Place/remove periodontal pack_____	NS
7. Post-operative periodontal debridement_____	NS
8. Test for tooth vitality_____	NS
9. Irrigate/dry root canal_____	NS
10. Medicate root canal_____	NS
11. Place/remove root canal seal_____	NS
12. Construct/place orthodontic appliances_____	NS
13. Construct/place temporary splints_____	NS
14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics_____	NS
15. Suture removal_____	NS
16. Management of dry socket_____	NS
17. Administer basic resuscitative measures_____	NS
18. Obtain patient's pulse_____	NS
19. Obtain patient's blood pressure_____	NS
20. Obtain patient's temperature_____	F>NF(011)
Total patients seen_____	

TABLE 7

DTA Responses (Expectations)
Feedback vs No Feedback
Phase II

Sample mean differences and level of significance from F tests. NS indicates no significant difference between means.

<u>I. RESTORATIVE TASKS</u>				
1.	Place rubber dam	NF>F (001)	9. Expose, process, or mount periapical radiographs	NS
2.	Place amalgam restoration	NF>F (033)	10. Expose, process, or mount panoramic radiographs	NS
3.	Place composite restoration	NS	11. Administrative duties (acting as NCOIC)	NS
4.	Place resin restoration	NS	12. DTA coordinator duties	NS
5.	Polish restoration	NS	<u>IV. OTHER TASKS</u>	
6.	Place intermediate base	NS	1. ANUG management	NS
7.	Place pulp capping material	NS	2. Pack gingival retraction cord	NS
8.	Place matrix retainer/celluloid strip	NS	3. Place tissue conditioning materials	NS
9.	Place sedative/temporary filling	NS	4. Prosthodontic-select shade/shape of teeth	NS
10.	Construct/place temporary crown	NS	5. Take primary impression	NS
11.	Insert permanent bridge	NS	6. Place/remove periodontal pack	NS
12.	Adjust restoration occlusion	NS	7. Post-operative periodontal debridement	NS
<u>II. PREVENTIVE TASKS</u>				
1.	Prophylaxis	NS	8. Test for tooth vitality	NS
2.	Topical fluoride application	F>NF (004)	9. Irrigate/dry root canal	NS
3.	Hand scaling	NS	10. Medicate root canal	NS
4.	Oral disease control (Patient education)	NS	11. Place/remove root canal seal	NS
5.	Pit and fissure sealing technique	NS	12. Construct/place orthodontic appliances	NS
6.	Cavitron	F>NF (048)	13. Construct/place temporary splints	NS
7.	Community & military prevention (Phase I)	NS	14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	NS
<u>III. INDIRECT PATIENT CARE TASKS</u>				
1.	Dental assistant duties	NF>F (001)	15. Suture removal	F>NF (011)
2.	Sterilization techniques	NS	16. Management of dry socket	NS
3.	Prescription writing	NS	17. Administer basic resuscitative measures	NS
4.	Pour and trim study model	NS	18. Obtain patient's pulse	NS
5.	Examine/chart existing restorations	NS	19. Obtain patient's blood pressure	NS
6.	Appointment scheduling	NS	20. Obtain patient's temperature	F>NF (005)
7.	Review patients dental/medical history	NS	Total patients seen	
8.	Expose, process, or mount bitewing radiograph	NS		

TABLE 8

DTA Responses (Preferences)
Feedback vs No Feedback
Phase II

Sample mean differences and level of significance from F tests. NS indicate no significant difference between means.

<u>I. RESTORATIVE TASKS</u>			
1. Place rubber dam	NF>F (001)	9. Expose, process, or mount periapical radiographs	NS
2. Place amalgam restoration	NS	10. Expose, process, or mount panoramic radiographs	NS
3. Place composite restoration	NS	11. Administrative duties (acting as NCOIC)	NS
4. Place resin restoration	NS	12. DTA coordinator duties	NS
5. Polish restoration	NS	<u>IV. OTHER TASKS</u>	
6. Place intermediate base	NS	1. ANUG management	F>NF (03)
7. Place pulp capping material	NS	2. Pack gingival retraction cord	NS
8. Place matrix retainer/celluloid strip	NS	3. Place tissue conditioning materials	NS
9. Place sedative/temporary filling	NS	4. Prosthodontic-select shade/shape of teeth	NS
10. Construct/place temporary crown	NS	5. Take primary impression	NS
11. Insert permanent bridge	NS	6. Place/remove periodontal pack	F>NF (031)
12. Adjust restoration occlusion	NS	7. Post-operative periodontal debridement	NS
<u>II. PREVENTIVE TASKS</u>		8. Test for tooth vitality	NS
1. Prophylaxis	NS	9. Irrigate/dry root canal	NS
2. Topical fluoride application	F>NF (05)	10. Medicate root canal	NS
3. Hand scaling	NS	11. Place/remove root canal seal	NS
4. Oral disease control (Patient education)	NS	12. Construct/place orthodontic appliances	NS
5. Pit and fissure sealing technique	NS	13. Construct/place temporary splints	NS
6. Cavitron	F>NF (028)	14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthodontics	NS
7. Community & military prevention (Phase I)	NS	15. Suture removal	F>NF (007)
<u>III. INDIRECT PATIENT CARE TASKS</u>		16. Management of dry socket	NS
1. Dental assistant duties	NS	17. Administer basic resuscitative measures	NS
2. Sterilization techniques	NS	18. Obtain patient's pulse	NS
3. Prescription writing	F>NF (007)	19. Obtain patient's blood pressure	NS
4. Pour and trim study model	NS	20. Obtain patient's temperature	NS
5. Examine/chart existing restorations	NS	Total patients seen	
6. Appointment scheduling	NS		
7. Review patients dental/medical history	NS		
8. Expose, process, or mount bitewing radiographs	NS		

TABLE 9

Dentists' Expectations
Feedback vs No Feedback
Phase II

Sample mean differences and level of significance from F tests. NS indicates no significant difference between means.

I. RESTORATIVE TASKS				
1. Place rubber dam	NF>F	(005)	9. Expose, process, or mount periapical radiographs	NS
2. Place amalgam restoration		NS	10. Expose, process, or mount panoramic radiographs	NS
3. Place composite restoration		NS	11. Administrative duties (acting as NCOIC)	NS
4. Place resin restoration		NS	12. DTA coordinator duties	F>NF (04)
5. Polish restoration		NS	IV. OTHER TASKS	
6. Place intermediate base		NS	1. ANUG management	F>NF (023)
7. Place pulp capping material		NS	2. Pack gingival retraction cord	NS
8. Place matrix retainer/celluloid strip		NS	3. Place tissue conditioning materials	NS
9. Place sedative/temporary filling	F>NF	(03)	4. Prosthodontic-select shade/shape of teeth	NS
10. Construct/place temporary crown		NS	5. Take primary impression	NS
11. Insert permanent bridge		NS	6. Place/remove periodontal pack	F>NF (041)
12. Adjust restoration occlusion		NS	7. Post-operative periodontal debridement	NS
II. PREVENTIVE TASKS			8. Test for tooth vitality	NS
1. Prophylaxis	F>NF	(03)	9. Irrigate/dry root canal	NS
2. Topical fluoride application	F>NF	(04)	10. Medicate root canal	NS
3. Hand scaling		NS	11. Place/remove root canal seal	NS
4. Oral disease control (Patient education)		NS	12. Construct/place orthodontic appliances	NS
5. Pit and fissure sealing technique	F>NF	(04)	13. Construct/place temporary splints	NS
6. Cavitron		NS	14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	NS
7. Community & military prevention (Phase I)		NS	15. Suture removal	NS
III. INDIRECT PATIENT CARE TASKS			16. Management of dry socket	NS
1. Dental assistant duties		NS	17. Administer basic resuscitative measures	NS
2. Sterilization techniques		NS	18. Obtain patient's pulse	NS
3. Prescription writing		NS	19. Obtain patient's blood pressure	NS
4. Pour and trim study model	F>NF	(04)	20. Obtain patient's temperature	NS
5. Examine/chart existing restorations		NS	Total patients seen	
6. Appointment scheduling		NS		NF>F (025)
7. Review patients dental/medical history		NS		
8. Expose, process, or mount bitewing radiographs		NS		

TABLE 10

Dentists' Expectations for Frequency of Performance in Phase I

S = seldom or never
I = infrequently
F = frequently

VF = very frequently
NA = not applicable

	S	I	F	VF	NA
I RESTORATION TASKS					
1. Place rubber dam	4	9	20	90	0
2. Place amalgam restoration	0	2	7	114	0
3. Place composite restoration	0	7	46	70	0
4. Place resin restoration	49	22	6	8	38
5. Polish restoration	12	23	44	43	1
6. Place intermediate base	0	11	23	89	0
7. Place pulp capping material	16	29	38	39	1
8. Place matrix retain or/ celluloid strip	0	2	14	107	0
9. Place sedative/temporary filling	5	38	45	34	1
10. Construct/place temporary crown	38	54	18	6	7
11. Insert permanent bridge	76	15	1	1	30
12. Adjust restoration occlusion	18	36	35	31	3
II PREVENTIVE TASKS					
1. Prophylaxis	11	24	44	40	4
2. Topical fluoride application	30	28	27	25	13
3. Hand scaling	15	39	42	20	7
4. Oral disease control (Patient education)	3	13	41	63	3
5. Pit and fissure sealing technique	73	17	3	1	29
6. Cavitron	23	25	38	29	8
7. Community & military prevention (Phase I)	58	6	6	11	42
III INDIRECT PATIENT CARE TASKS					
1. Dental assistant duties	7	13	30	67	6
2. Sterilization techniques	24	25	30	34	10
3. Prescription writing	78	9	2	2	32
4. Pour and trim study model	52	38	9	5	19
5. Examine/chart existing restorations	36	20	24	20	23
6. Appointment scheduling	37	11	21	38	16
7. Review patients dental/medical history	8	4	23	86	2
8. Expose, process, or mount bitewing radiographs	48	31	15	7	22

	S	I	F	VF	NA
9. Expose, process, or mount periapical radiographs	45	39	10	6	23
10. Expose, process, or mount panoramic radiographs	71	12	2	3	35
11. Administrative duties (acting as NCOIC)	70	3	1	3	46
12. DTA coordinator duties	56	6	6	5	50
IV OTHER TASKS					
1. ANUG management	57	47	2	1	16
2. Pack gingival retraction cord	54	33	6	3	27
3. Place tissue conditioning materials	76	15	1	2	29
4. Prosthodontic select shade/shape of teeth	53	27	6	3	34
5. Take primary impression	24	37	35	10	17
6. Place/remove periodontal pack	58	16	3	5	41
7. Post-operative periodontal debridement	63	16	4	3	37
8. Test for tooth vitality	54	31	14	0	24
9. Irrigate/dry root canal	28	38	27	6	24
10. Medicate root canal	28	38	28	5	24
11. Place/remove root canal seal	34	36	23	4	26
12. Construct/place orthodontic appliances	63	8	6	0	46
13. Construct/place temporary splints	79	4	2	2	36
14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	27	33	25	15	23
15. Suture removal	47	35	5	4	32
16. Management of dry socket	70	13	1	0	39
17. Administer basic resuscitative measures	93	2	1	2	25
18. Obtain patient's pulse	71	22	7	4	19
19. Obtain patient's blood pressure	68	22	10	4	19
20. Obtain patient's temperature	71	24	6	4	18

TABLE 11

Dentists' Expectations for Frequency of Performance in Phase II

S = seldom or never

I = infrequently

F = frequently

VF = very frequently

NA = not applicable

	S	I	F	VF	NA
I RESTORATION TASKS					
1. Place rubber dam	10	15	29	84	3
2. Place amalgam restoration	1	3	3	131	3
3. Place composite restoration	2	7	48	80	4
4. Place resin restoration	52	15	7	11	56
5. Polish restoration	10	28	60	38	5
6. Place intermediate base	6	5	25	101	4
7. Place pulp capping material	18	42	31	45	5
8. Place matrix retain or/ celluloid strip	2	2	20	115	2
9. Place sedative/temporary filling	6	32	59	41	3
10. Construct/place temporary crown	48	60	13	10	10
11. Insert permanent bridge	75	14	1	0	51
12. Adjust restoration occlusion	22	42	41	28	8
II PREVENTIVE TASKS					
1. Prophylaxis	10	29	65	34	3
2. Topical fluoride application	35	30	42	26	8
3. Hand scaling	20	50	50	17	4
4. Oral disease control (Patient education)	2	7	50	78	4
5. Pit and fissure sealing technique	74	16	7	1	43
6. Cavitron	24	41	41	25	10
7. Community & military prevention (Phase I)	55	11	3	12	60
III INDIRECT PATIENT CARE TASKS					
1. Dental assistant duties	9	12	45	70	5
2. Sterilization techniques	18	27	37	44	15
3. Prescription writing	65	14	4	1	57
4. Pour and trim study model	55	42	14	5	25
5. Examine/chart existing restorations	40	23	29	26	23
6. Appointment scheduling	37	21	20	41	22
7. Review patients dental/medical history	4	4	21	98	14
8. Expose, process, or mount bitewing radiographs	54	28	14	12	33
9. Expose, process, or mount periapical radiographs	57	33	10	9	32
10. Expose, process, or mount panoramic radiographs	70	15	4	5	47
11. Administrative duties (acting as NCOIC)	69	5	2	0	65
12. DTA coordinator duties	73	10	6	3	49
IV OTHER TASKS					
1. ANUG management	69	38	10	1	23
2. Pack gingival retraction cord	60	42	8	2	29
3. Place tissue conditioning materials	80	22	3	0	36
4. Prosthodontic select shade/shape of teeth	62	31	10	2	36
5. Take primary impression	21	41	51	9	19
6. Place/remove periodontal pack	74	17	6	1	43
7. Post-operative periodontal debridement	72	15	6	1	47
8. Test for tooth vitality	60	36	16	2	27
9. Irrigate/dry root canal	44	45	24	8	20
10. Medicate root canal	44	44	27	9	17
11. Place/remove root canal seal	49	38	22	6	26
12. Construct/place orthodontic appliances	72	7	7	1	54
13. Construct/place temporary splints	80	3	2	0	56
14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics	30	38	38	11	24
15. Suture removal	60	35	11	4	31
16. Management of dry socket	76	19	5	0	41
17. Administer basic resuscitative measure	97	9	3	2	30
18. Obtain patient's pulse	76	27	8	6	24
19. Obtain patient's blood pressure	71	27	14	7	22
20. Obtain patient's temperature	78	30	8	4	21

TABLE 12

Means for Demographic and Satisfaction (Job Descriptive Index)
 Values Broken Down by DTAs' Level-of-Training in Phase I

	<u>In Trng-3 mo.</u>	<u>4-9 mo.</u>	<u>10-18 mo.</u>	<u>Population</u>	<u>ANOVA Level of Significance</u>
<u>Demographic Data</u>					
Age	30.86	35.94	38.83	34.16 (N=291)	(001)
Years Civ Educ	12.64	13.11	12.88	12.77 (N=305)	(049)
<u>Satisfaction</u>					
Work	43.28	44.94	42.18	43.08 (N=305)	NS
Supervisor	45.74	46.55	44.04	45.22 (N=303)	NS
Co-Workers	42.50	46.11	42.29	42.89 (N=301)	NS
Pay	9.18	9.58	9.06	9.19 (N=305)	NS
Promotions	12.64	13.69	9.78	11.78 (N=305)	(002)

TABLE 13

Means for Demographic and Satisfaction (Job Descriptive Index)
Values Broken Down by DTAs' Level-of-Training in Phase II

	<u>In Trng-3 mo.</u>	<u>4-9 mo.</u>	<u>10-18 mo.</u>	<u>Population</u>	<u>ANOVA Level of Significance</u>
<u>Demographic</u>					
Age	31.68	32.66	39.06	35.04(N=269)	(001)
Years Civ Educ	12.66	12.82	12.86	12.79(N=275)	NS
<u>Satisfaction</u>					
Work	42.94	43.03	41.99	42.50(N=275)	NS
Supervisor	46.57	46.35	46.39	46.43(N=276)	NS
Co-Workers	44.13	44.32	42.18	43.37(N=270)	NS
Pay	8.89	8.33	9.31	8.85(N=273)	NS
Promotions	11.92	9.54	9.06	9.99(N=267)	(041)

TABLE 14

Means and Comparison Between Phase I vs Phase II Satisfaction Measures

	<u>I</u>	<u>II</u>	<u>ANOVA Level of Significance</u>
Work	43.00	42.45	NS
Supervisor	45.18	46.39	(037)
Co-Workers	42.83	43.50	NS
Pay	9.16	8.75	NS
Promotions	11.85	9.96	(004)

TABLE 15

Means and Comparison Between Demographic and Satisfaction
(Job Descriptive Index) Values for Feedback vs No Feedback
Conditions in Phase II

	Mean Values		ANOVA Level of <u>Significance</u>
	<u>No Feedback</u>	<u>Feedback</u>	
<u>Demographic</u>			
Age	34.89	35.17	NS
Years Civ Educ	12.69	12.87	NS
<u>Satisfaction</u>			
Work	42.15	42.79	NS
Supervisor	46.78	46.14	NS
Co-Workers	42.81	43.84	NS
Pay	8.58	9.09	NS
Promotions	10.73	9.35	NS

TABLE 16

Summary of F ratios (of differences between DTAs' expectations, preferences, actual 10-day performance with dentists' expectations) between Phase I and Phase II and significant Differences

Restorative Tasks	Phase I Overall		Phase II No Feedback		Phase II Feedback	
	F Ratio	Difference	F Ratio	Difference	F Ratio	Difference
1	65.368	4>3=2>1	18.270	4=3=2>1	12.978	4=3=2>1
2	40.763	4>3>1; 4=2>1	15.988	4=3=2>1	14.412	4=3=2>1
3	41.817	4>3=2>1	22.644	4>3=2>1	16.404	4>3=2>1
4	6.048	3=2>1	1.316	NS	1.823	NS
3	32.277	4>3=2>1	7.298	4=3=2>1	12.176	4=3=2>1
6	21.120	4=3=2>1	8.483	3=2>1	3.813	4>1
7	34.716	4>3=2>1	7.324	4=3>1	16.171	4>3=2=1
8	64.825	4>3=2>1	17.060	4=3=2>1	18.553	4>3=2>1
9	25.934	4>2=3>1	18.443	4>3=2>1	25.873	4>3=2=1
10	14.598	4=2>3=1	9.554	4>3=2; 4>2>1	7.823	4>3=1
11	10.599	2>4=3=1	5.155	2>1	8.602	2>3=1
12	13.555	4=3>1; 4>2>1	2.869	NS	1.237	NS
Preventive Tasks						
1	32.862	4>3=2>1	8.958	4>2>1; 3>1	8.464	4>2=1; 3>1
2	12.873	4>3=2>1	4.016	4>1	4.785	4>1
3	19.095	4>3=2>1; 4>3>1	2.784	NS	2.822	NS
4	21.568	4>3=2>1	4.590	4>1	12.243	4>2=3; 3>1
5	5.325	4=2>1	1.487	NS	3.362	NS
6	25.975	4>3=2>1	6.691	3>1; 4>2	4.663	4>1
7	.607	NS	3.785	4>2=1	4.348	4>3=2=1

- 1 = DTAs actual 10-day performance
 2 = DTAs preferred 10-day performance
 3 = DTAs expected 10-day performance
 4 = Dentists expectations for DTAs 10-day performance

TABLE 16 (continued)

Indirect Patient Care	PHASE I OVERALL		PHASE II NO FEEDBACK		PHASE II FEEDBACK	
	F Ratio	Diff Scheffe	F Ratio	Diff Scheffe	F Ratio	Diff Scheffe
1	12.737	4=3>2=1	5.378	3=1>2	6.325	4>2
2	5.108	4>2=1	2.462	NS	6.536	4>3=2=1
3	8.926	2>3; 4>1	4.519	4>3=1	2.629	NS
4	13.185	4=2>3=1	2.578	NS	4.225	4>1
5	4.788	NS	1.294	NS	0.591	NS
6	9.787	4>3=2=1	1.208	NS	2.691	NS
7	16.549	4=3=2>1	6.469	4=3=2>1	2.685	4>1
8	5.546	4>3=1	0.832	NS	3.294	4>3=1
9	1.632	NS	0.534	NS	2.790	4>1
10	8.190	4>3=1	1.240	NS	6.866	4>3=2=1
11	1.726	NS	0.389	NS	0.619	NS
12	1.146	NS	0.712	NS	0.270	NS
Patients	98.199	4>3=2>1	26.775	4>3=2>1	12.507	4>3=1=2>1

TABLE 16 (continued)

Other	PHASE I OVERALL		PHASE II NO FEEDBACK		PHASE II FEEDBACK	
	F Ratio	Diff Scheffe	F Ratio	Diff Scheffe	F Ratio	Diff Scheffe
1	8.499	4=2>1	5.180	4=3>1	2.555	NS
2	14.163	4>1; 2>3	3.544	4>1	3.887	4>1
3	9.473	2>4=3=1	3.731	2>1	4.388	NS
4	16.202	2>3; 4>1	2.639	NS	6.728	4=2>1
5	15.162	4>3; 2>1	10.267	4>2=3=1 2>1	12.809	4>2>1
6	13.663	2>4=3=1	14.347	2>4=3=1	6.063	4=2>1
7	5.387	2>3=1	1.653	NS	5.551	4>3=1
8	16.065	4=2>3=1	7.607	4>1	4.287	4>1
9	9.033	4=2>1	2.110	NS	6.997	4=2>1
10	10.463	4=2>1	2.915	NS	7.768	4>1
11	10.842	4>3; 2>1	4.949	4=2>1	5.877	4>1
12	1.470	NS	0.936	NS	0.917	NS
13	9.053	2>3=1	10.536	2>4=3=1	5.606	2>3=1
14	18.630	4>3=2; 2>1	11.005	4>3=2=1	14.564	4>3=2=1
15	24.849	2>3; 4>1	19.058	4=2>3=1	10.585	4=2>1
16	17.177	2>4=3=1	12.512	4=2>3=1	4.884	2>1
17	2.059	NS	0.734	NS	2.717	NS
18	11.291	2>3=1	2.739	NS	3.450	2>1
19	7.481	2>3=1	3.081	NS	4.698	NS
20	9.845	2>3=1	5.338	4>3=1	2.820	NS

TABLE 17

Selection of Studies Using JDI Satisfaction (mean levels)

STUDY	WORK	SUPERVISOR	CO-WRKRS	PAY	PROMOTIONS
Imparato (1972) male & female VA hospital employees	34	40	38-41	8	8-10
Hulin (1966) female clerical workers	35	41	41	15	10
Hulin (1968) female clerical workers	35-36	40-43	41-43	15	10-24
Sarata (1974) male & female employees serving retarded	34-39	39-44	39-45	15-16	10-13

Health Care Studies Division DTA Worksheet

Please enter today's date _____

Below are a series of tasks. How frequently did you perform each task today? Please try to be as accurate as possible in entering the total number of times you did the task. If you feel that using a tally count during the day would help, please use it.

RESTORATIVE PROCEDURES	TOTAL TIMES/DAY	PREVENTIVE PROCEDURES	TOTAL TIMES/DAY
1. Place rubber dam	_____	1. Prophylaxis	_____
2. Place amalgam restoration	_____	2. Topical fluoride application	_____
3. Place silicate restoration	_____	3. Scaling	_____
4. Place composite restoration	_____	4. Oral disease control (patient education)	_____
5. Place resin restoration	_____	5. Pit and fissure sealing technique	_____
6. Polish restoration	_____		
7. Place intermediate base	_____		
8. Place pulp capping material	_____	OTHER PROCEDURES	TOTAL TIMES/DAY
9. Place matrix retainer	_____	1. Place/remove periodontal pack	_____
10. Place sedative/temporary filling	_____	2. Post-operative periodontal debridement	_____
11. Place temporary crown	_____	3. ANUG management	_____
		4. Irrigate/dry root canal	_____
INDIRECT PATIENT CARE PROCEDURES	TOTAL TIMES/DAY	5. Mediate root canal	_____
1. Dental assistant duties	_____	6. Place/remove root canal seal	_____
2. Sterilization techniques	_____	7. Oral surgery pre- and post-operative instructions	_____
3. Prescription writing	_____	8. Suture removal	_____
4. Pour and trim study model	_____	9. Management of dry socket	_____
5. Identify and chart existing restorations	_____	10. Record primary impression	_____
6. Appointment scheduling	_____	11. Place tissue conditioning materials	_____
7. Obtain patient's dental/medical history	_____	12. Administer basic resuscitative measures	_____
8. Expose, process, and mount periapical radiographs	_____	13. Test for tooth vitality	_____
9. Expose, process, and mount bitewing radiographs	_____	14. Obtain patient's pulse	_____
10. Expose, process, and mount panoramic radiographs	_____	15. Obtain patient's blood pressure	_____
		16. Obtain patient's temperature	_____

PATIENT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Were you assisted by a chairside assistant															
a. FULL TIME															
b. PART TIME															
c. NOT AT ALL															

AHS Form 75 (OT)
29 May 74

Consider the following list of tasks. Estimate the *total* number of times you expect to perform each of these tasks during the following 10 days. Write that number in the space for "expect" next to each task. Now consider how frequently you would prefer to perform each of the tasks during the same 10 working days. Write this total in the space for "prefer." Please make one entry in both the "expect" and in the "prefer" columns for each task as would be performed over the next ten consecutive working days.

TASKS	EXPECT	PREFER	TASKS	EXPECT	PREFER
1. <u>Dental assistant duties</u>			23. <u>Place intermediate base</u>		
2. <u>Sterilization techniques</u>			24. <u>Place pulp capping material</u>		
3. <u>Place/remove periodontal pack</u>			25. <u>Place matrix retainer</u>		
4. <u>Post-operative periodontal debridement</u>			26. <u>Pit and fissure sealing technique</u>		
5. <u>Prophylaxis</u>			27. <u>Place sedative/temporary filling</u>		
6. <u>Topical fluoride application</u>			28. <u>Place temporary crown</u>		
7. <u>Scaling</u>			29. <u>Record primary impression</u>		
8. <u>ANUG management</u>			30. <u>Pour and trim study model</u>		
9. <u>Oral disease control (patient education)</u>			31. <u>Place tissue conditioning materials</u>		
10. <u>Place rubber dam</u>			32. <u>Administer basic resuscitative measures</u>		
11. <u>Irrigate/dry root canal</u>			33. <u>Identify and chart existing restorations</u>		
12. <u>Medicate root canal</u>			34. <u>Appointment scheduling</u>		
13. <u>Place/remove root canal seal</u>			35. <u>Test for tooth vitality</u>		
14. <u>Prescription writing</u>			36. <u>Obtain patient's pulse</u>		
15. <u>Oral surgery pre- and post-operative instructions</u>			37. <u>Obtain patient's blood pressure</u>		
16. <u>Suture removal</u>			38. <u>Obtain patient's temperature</u>		
17. <u>Management of dry socket</u>			39. <u>Obtain patient's dental/medical history</u>		
18. <u>Place amalgam restoration</u>			40. <u>Expose, process, and mount periapical radiographs</u>		
19. <u>Place silicate restoration</u>			41. <u>Expose, process, and mount bitewing radiographs</u>		
20. <u>Place composite restoration</u>			42. <u>Expose, process, and mount panoramic radiographs</u>		
21. <u>Place resin restoration</u>					
22. <u>Polish restoration</u>					

**DESCRIPTION OF THE WORK, PAY, PROMOTIONS,
CO-WORKERS, AND TEAM DENTIST ON YOUR JOB**

Below are five groups of items. Each group represents some aspect of your present job. We would like you to indicate your feelings about these aspects by circling "Y" (yes) if the item is descriptive of your present job. "N" (no) if it is not descriptive and "?" if you can't decide.

WORK		CO-WORKERS (other than team dentist)	
Fascinating	Y N ?	Stimulating	Y N ?
Routine	Y N ?	Boring	Y N ?
Satisfying	Y N ?	Ambitious	Y N ?
Good	Y N ?	Stupid	Y N ?
Creative	Y N ?	Responsible	Y N ?
Respected	Y N ?	Fast	Y N ?
Hot	Y N ?	Intelligent	Y N ?
Pleasant	Y N ?	Easy to make enemies	Y N ?
Useful	Y N ?	Talk too much	Y N ?
Tiresome	Y N ?	Smart	Y N ?
Healthful	Y N ?	Lazy	Y N ?
Challenging	Y N ?	Unpleasant	Y N ?
On your feet	Y N ?	No privacy	Y N ?
Frustrating	Y N ?	Active	Y N ?
Simple	Y N ?	Narrow interests	Y N ?
Endless	Y N ?	Loyal	Y N ?
Gives sense of accomplishment	Y N ?	Hard to meet	Y N ?
Boring	Y N ?		
TEAM DENTIST AS SUPERVISER		PAY	
Asks my advice	Y N ?	Income adequate for	Y N ?
Hard to please	Y N ?	normal expenses	
Impolite	Y N ?	Barely live on income	Y N ?
Praises good work	Y N ?	Bad	Y N ?
Tactful	Y N ?	Income provides luxuries	Y N ?
Influential	Y N ?	Insecure	Y N ?
Up-to-date	Y N ?	Less than I deserve	Y N ?
Doesn't supervise enough	Y N ?	Highly paid	Y N ?
Quick-tempered	Y N ?	Underpaid	Y N ?
Tells me where I stand	Y N ?		
Annoying	Y N ?		
Stubborn	Y N ?		
Knows job well	Y N ?	PROMOTIONS	
Bad	Y N ?	Good Opportunity for	Y N ?
Intelligent	Y N ?	advancement	
Leaves me on my own	Y N ?	Opportunity somewhat limited	Y N ?
Around when needed	Y N ?	Promotion on ability	Y N ?
Lazy	Y N ?	Dead-end-job	Y N ?
		Good chance for promotion	Y N ?
		Unfair promotion policy	Y N ?
		Infrequent promotions	Y N ?
		Regular promotions	Y N ?
		Fairly good chance for	Y N ?
		promotion	

We appreciate your cooperation.

Have you worked with a DTA before? circle one Yes No If yes, how long (months) 142

You have been selected to be the leader of a team employing fully trained DTAs. Please rate the following list of tasks in terms of how frequently you expect a DTA to perform each task over a ten day calendar period (work days). For example, the task "pencil sharpening" would be expected to be performed very frequently (VF) and an average of 50 times over a ten day period (five times/day x 10 work days).

S = seldom or never
I = infrequently
F = frequently
VF = very frequently
NA = not applicable
TOT = total number of times expected to be performed over 10 days

TASKS	S	I	F	VF	NA	TOT	TASKS	S	I	F	VF	NA	TOT
(example) Pencil sharpening						50	23. Place intermediate base				X		100
1. Dental assistant duties				X		50	24. Place pulp capping material	X					10
2. Sterilization techniques			X			20	25. Place matrix retainer				X		90
3. Place/remove periodontal pack	X					2	26. Pit and fissure sealing technique	X					0
4. Post-operative periodontal debridement	X					1	27. Place sedative/temporary filling		X				20
5. Prophylaxis		X				15	28. Place temporary crown	X					10
6. Topical fluoride application		X				15	29. Record primary impression	X					0
7. Scaling		X				15	30. Pour and trim study model	X					0
8. ANUG management	X					10	31. Place tissue conditioning materials	X					0
9. Oral disease control (patient education)		X				15	32. Administer basic resuscitative measures	X					
10. Place rubber dam	X					100	33. Identify and chart existing restorations			X			35
11. Irrigate/dry root canal	X					100	34. Appointment scheduling	X					
12. Medicate root canal	X					0	35. Test for tooth vitality	X					
13. Place/remove root canal seal	X					0	36. Obtain patient's pulse	X					
14. Prescription writing		X				0	37. Obtain patient's blood pressure	X					
15. Oral surgery pre- and post-operative instructions		X				3	38. Obtain patient's temperature	X					
16. Suture removal	X					10	39. Obtain patient's dental/medical history				X		75
17. Management of dry socket				X		10	40. Expose, process, and mount periapical radiographs	X					10
18. Place amalgam restoration	X					80	41. Expose, process, and mount bitewing radiographs	X					10
19. Place silicate restoration				X		50	42. Expose, process, and mount panoramic radiographs	X					10
20. Place composite restoration						50							
21. Place resin restoration	X					0							
22. Polish restoration		X				30							

Inc 3

SUBJECT: Instructions to DTAs

1. The purpose of this study is to determine how frequently you perform a variety of tasks which might be expected of DTAs. Each day for twenty consecutive work days, we would like you to record how often you do these tasks. It is recommended that you use the folder packet as a workbook in which you mark a tally next to a task after you do it. For example, if you expose and mount bitewing radiographs, place a mark on your work sheet next to that task. At the end of the day, add up your tally count and enter that number in the TOTAL column next to each task. Then, replace the work sheet and put in the work sheet for the next day. An example is provided of how a work sheet should be filled out. At the bottom of each work sheet, enter the degree to which you were assisted for each patient.
2. In addition to how frequently you perform these tasks, you also will be asked to evaluate how frequently you expect and prefer to do the tasks. Several measures of different aspects of job satisfaction will also be assessed.
3. A biographical data sheet is included to provide information about your background. We ask that to identify yourself, you use your mother's maiden name as your code name. We request a code name because a follow-up is planned and we would like to provide you a means of remaining anonymous, yet be able to identify your responses on all survey instruments.
4. Please be as precise as you can. The information will be used to inform future DTAs about how they will be employed, what tasks they can expect to perform, and how frequently. You will be helping other DTAs by providing accurate information.
5. In general, most of the procedures are self explanatory. However, some tasks may appear to require more than one tally. If there is an overlap between categories, mark both. Exceptions would include the following: If more than one restoration is performed on a single patient, place a tally for each restoration. For polishing restorations, record one tally per patient regardless of the number done. Do not indicate that restorations were polished if the procedure was accomplished in conjunction with a prophylaxis. Try to choose the single task category which best describes what you have done. Dental assistant duties are those that can be normally accomplished by a chair side assistant without DTA training. Oral disease control (oral hygiene instructions) is recorded only when formally presented in a manner consistent with the team's established patient education program.
6. Thank you for your cooperation.

BIOGRAPHICAL DATA SHEET

Today's date _____

Code Name (use mother's maiden name) _____

Rank or rating _____

Age on last birthday (in years) _____

Marital status (circle one) single married divorced

Sex (circle one) female male

Date of completion of DTA training
(expected date if training is not completed) _____

How many years of civilian education have you completed?
(For example, if you graduated from high school write 12) _____

APPENDIX B

HEALTH CARE STUDIES DIVISION DTA WORKSHEET

Below are a series of tasks. How frequently did you perform each task today? Please try to be as accurate as possible in entering the total number of times you did the task. If you feel that using a tally count during the day would help, please use it.

DTA'S NAME _____
CLINIC NAME/NUMBER _____
TODAY'S DATE _____

	TOTAL TIMES/DAY	TOTAL TIMES/DAY
I RESTORATIVE TASKS		
1. Place rubber dam _____		9. Expose, process, or mount periapical radiographs _____
2. Place amalgam restoration _____		10. Expose, process, or mount panoramic radiographs _____
3. Place composite restoration _____		11. Administrative duties (acting as NCOIC) _____
4. Place resin restoration _____		12. DTA coordinator duties _____
5. Polish restoration _____		IV OTHER TASKS
6. Place intermediate base _____		1. ANUG management _____
7. Place pulp capping material _____		2. Pack gingival retraction cord _____
8. Place matrix retainer or celluloid strip _____		3. Place tissue conditioning materials _____
9. Place sedative/temporary filling _____		4. Prosthodontic- select shade/shape of teeth _____
10. Construct/place temporary crown _____		5. Take primary impression _____
11. Insert permanent bridge _____		6. Place/remove periodontal pack _____
12. Adjust restoration occlusion _____		7. Post-operative periodontal debridement _____
II PREVENTIVE TASKS		8. Test for tooth vitality _____
1. Prophylaxis _____		9. Irrigate/dry root canal _____
2. Topical fluoride application _____		10. Medicate root canal _____
3. Hand scaling _____		11. Place/remove root canal seal _____
4. Oral disease control (Patient education) _____		12. Construct/place orthodontic appliances _____
5. Pit and fissure sealing technique _____		13. Construct/place temporary splints _____
6. Cavitron _____		14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics _____
7. Community & military prevention (Phase I) _____		15. Suture removal _____
III INDIRECT PATIENT CARE TASKS		16. Management of dry socket _____
1. Dental assistant duties _____		17. Administer basic resuscitative measures _____
2. Sterilization techniques _____		18. Obtain patient's pulse _____
3. Prescription writing _____		19. Obtain patient's blood pressure _____
4. Pour and trim study model _____		20. Obtain patient's temperature _____
5. Examine/chart existing restorations _____		
6. Appointment scheduling _____		
7. Review patients dental/medical history _____		
8. Expose, process, or mount bitewing radiographs _____		

List any other tasks that are not mentioned above in the space below.

PATIENT NUMBER	1	2	3	4	5	6	7	8	9	10	11	13	14	15
Enter if you were assisted by a chairside assistant														
a. Full Time														
b. Part Time														
c. Not At All														

DTA'S EXPECTATION & REALITIES

Consider the following list of tasks. Estimate the total number of times you expect to perform each of these tasks during the following 10 days. Write that number in the space for "expect" next to each task. Now consider how frequently you would prefer to perform each of the tasks during the same 10 working days. Write this total in the space for "prefer". Please make one entry in both the "expect" and "prefer" columns for each task as would be performed over the next ten consecutive working days.

DTA'S NAME _____
CLINIC NAME/NUMBER _____
TODAY'S DATE _____

	EXPECT	PREFER		EXPECT	PREFER
I RESTORATIVE TASKS					
1. Place rubber dam			9. Expose, process, or mount periapical radiographs		
2. Place amalgam restoration			10. Expose, process, or mount panoramic radiographs		
3. Place composite restoration			11. Administrative duties (acting as NCOIC)		
4. Place resin restoration			12. DTA coordinator duties		
5. Polish restoration			IV OTHER TASKS		
6. Place intermediate base			1. A/IUG management		
7. Place pulp capping material			2. Pack gingival retraction cord		
8. Place matrix retainer or celluloid strip			3. Place tissue conditioning materials		
9. Place sedative/temporary filling			4. Prosthodontic-select shade/shape of teeth		
10. Construct/place temporary crown			5. Take primary impression		
11. Insert permanent bridge			6. Place/remove periodontal pack		
12. Adjust restoration occlusion			7. Post-operative periodontal debridement		
II PREVENTIVE TASKS			8. Test for tooth vitality		
1. Prophylaxis			9. Irrigate/dry root canal		
2. Topical fluoride application			10. Medicate root canal		
3. Hand scaling			11. Place/remove root canal seal		
4. Oral disease control (Patient education)			12. Construct/place orthodontic appliances		
5. Pit and fissure sealing technique			13. Construct/place temporary splints		
6. Cavitron			14. Pre-and post-operative instructions for surgery, endodontics, periodontics, or prosthetics		
7. Community & military prevention (Phase I)			15. Suture removal		
III INDIRECT PATIENT CARE TASKS			16. Management of dry socket		
1. Dental assistant duties			17. Administer basic resuscitative measures		
2. Sterilization techniques			18. Obtain patient's pulse		
3. Prescription writing			19. Obtain patient's blood pressure		
4. Pour and trim study model			20. Obtain patient's temperature		
5. Examine/chart existing restorations			List any other tasks that are not mentioned above in the space below.		
6. Appointment scheduling					
7. Review patients dental/medical history					
8. Expose, process, or mount bitewing radiographs					

Number of patients you expect to see _____, prefer to see _____ over the next 10 working days.

Number of days you expect to work _____, prefer to work _____ over the next 10 working days

Do you expect any changes in the next 10 working days like rotating thru different clinics, changing dentists, having new assistants, other DTAs going on leave, holidays, if yes what changes:

Patients are received mostly from: Scheduled appointments, Sick call, Other (Circle one)

SATISFACTION SCALE

DESCRIPTION OF THE WORK, PAY, PROMOTIONS, CO-WORKERS, AND TEAM DENTIST ON YOUR JOB

Below are five groups of items. Each group represents some aspect of your present job. We would like you to indicate your feelings about these aspects by circling "Y" (yes) if the item is descriptive of your present job. "N" (no) if it is not descriptive and "?" if you can't decide.

WORK		CO-WORKERS (other than team dentist)	
Fascinating	Y N ?	Stimulating	Y N ?
Routine	Y N ?	Boring	Y N ?
Satisfying	Y N ?	Slow	Y N ?
Boring	Y N ?	Ambitious	Y N ?
Good	Y N ?	Stupid	Y N ?
Creative	Y N ?	Responsible	Y N ?
Respected	Y N ?	Fast	Y N ?
Hot	Y N ?	Intelligent	Y N ?
Pleasant	Y N ?	Easy to make enemies	Y N ?
Useful	Y N ?	Talk too much	Y N ?
Tiresome	Y N ?	Smart	Y N ?
Healthful	Y N ?	Lazy	Y N ?
Challenging	Y N ?	Unpleasant	Y N ?
On your feet	Y N ?	No privacy	Y N ?
Frustrating	Y N ?	Active	Y N ?
Simple	Y N ?	Narrow interests	Y N ?
Endless	Y N ?	Loyal	Y N ?
Gives sense of accomplishment	Y N ?	Hard to meet	Y N ?

TEAM DENTIST AS SUPERVISOR		PAY	
Asks my advice	Y N ?	Income adequate for	Y N ?
Hard to please	Y N ?	normal expenses	
Impolite	Y N ?	Satisfactory profit sharing	Y N ?
Praises good work	Y N ?	Barely live on income	Y N ?
Tactful	Y N ?	Bad	Y N ?
Influential	Y N ?	Income provides luxuries	Y N ?
Up-to-date	Y N ?	Insecure	Y N ?
Doesn't supervise enough	Y N ?	Less than I deserve	Y N ?
Quick-tempered	Y N ?	Highly paid	Y N ?
Tells me where I stand	Y N ?	Underpaid	Y N ?
Annoying	Y N ?		
Stubborn	Y N ?	PROMOTIONS	
Knows job well	Y N ?	Good opportunity for	Y N ?
Bad	Y N ?	advancement	
Intelligent	Y N ?	Opportunity somewhat limited	Y N ?
Leaves me on my own	Y N ?	Promotion on ability	Y N ?
Around when needed	Y N ?	Dead-end-job	Y N ?
Lazy	Y N ?	Good chance for promotion	Y N ?
		Unfair promotion policy	Y N ?
		Infrequent promotions	Y N ?
		Regular promotions	Y N ?
		Fairly good chance for	Y N ?
		promotion	

We appreciate your cooperation.

CLINIC NAME/NUMBER _____ DENTIST EXPECTATION SHEET
RANK _____ YEARS SINCE GRADUATION _____

You have been selected to be the leader of a team employing fully trained DTAs. Please rate the following list of tasks in terms of how frequently you expect a DTA to perform each task over a ten day work period. For example, the task "place rubber dam" would be expected to be performed very frequently (VF) and an average of 50 times over a ten day period (five times/day X 10 work days).

S = seldom or never
I = infrequently
F = frequently

VF = very frequently
NA = not applicable
TOT = total number of times expected to be performed over 10 days

	S	I	F	VF	NA	TOT		S	I	F	VF	NA	TOT
I RESTORATIVE TASKS													
1. Place rubber dam							9. Expose, process, or mount periapical radiographs						
2. Place amalgam restoration							10. Expose, process, or mount panoramic radiographs						
3. Place composite restoration							11. Administrative duties (acting as NCOIC)						
4. Place resin restoration							12. DTA coordinator duties						
5. Polish restoration							IV OTHER TASKS						
6. Place intermediate base							1. A/HUG management						
7. Place pulp capping material							2. Pack gingival retraction cord						
8. Place matrix retainer or celluloid strip							3. Place tissue conditioning materials						
9. Place sedative/temporary filling							4. Prosthodontic- select shade/shape of teeth						
10. Construct/place temporary crown							5. Take primary impression						
11. Insert permanent bridge							6. Place/remove periodontal pack						
12. Adjust restoration occlusion							7. Post-operative periodontal debridement						
II PREVENTIVE TASKS							8. Test for tooth vitality						
1. Prophylaxis							9. Irrigate/dry root canal						
2. Topical fluoride application							10. Medicate root canal						
3. Hand scaling							11. Place/remove root canal seal						
4. Oral disease control (Patient education)							12. Construct/place orthodontic appliances						
5. Pit and fissure sealing technique							13. Construct/place temporary splints						
6. Cavitron							14. Pre-and post-operative instructions for surgery, endodontics, periodontics, or prosthetics						
7. Community & military prevention (Phase I)							15. Suture removal						
III INDIRECT PATIENT CARE TASKS							16. Management of dry socket						
1. Dental assistant duties							17. Administer basic resuscitative measures						
2. Sterilization techniques							18. Obtain patient's pulse						
3. Prescription writing							19. Obtain patient's blood pressure						
4. Pour and trim study model							20. Obtain patient's temperature						
5. Examine/chart existing restorations							List any other tasks that are not mentioned above in the space below.						
6. Appointment scheduling													
7. Review patients dental/medical history													
8. Expose, process, or mount bitewing radiographs													

How many patients would you expect to see in a 10 day work period _____.

SUBJECT: Instructions to DTAs

1. Your task is to orient a new DTA at your clinic. To assist you in this task, the following study is proposed. The purpose of this study is to determine how frequently you perform a variety of tasks which might be expected of DTAs. It is recommended that you use the folder packet as a workbook to retain the worksheet that you fill out each day. For example, at the end of each work day complete the worksheet on the right side of the folder and transfer it to the left side. This will leave a new blank worksheet on the right side of the folder for the following days work.

2. In filling out the worksheet each day, room has been left next to each task for you to place tally marks, if you desire, to keep track of the tasks performed. For example, if you "expose, process or mount bitewing radiographs," place a mark on your worksheet next to that task. At the end of the day, add up your tally count and enter the total number for that task immediately to the right of the tally marks under the total column. At the bottom of each work sheet, enter the extent to which you were assisted for each patient. If you work only part of a day, please write a note to that effect in the assistant section (i.e. 1/2, 3/4).

3. In general, most of the tasks are self explanatory. However, some tasks may appear to require more than one tally. If there is an overlap between categories, mark both. Exceptions would include the following:

a. Restorative Tasks:

- 1) If more than one restoration is performed on a single patient, place a tally for each restoration.
- 2) For polishing restorations, record one tally per patient regardless of the number done. Do not indicate that restorations were polished if the procedure was accomplished in conjunction with a prophylaxis.

b. Preventive Tasks: Oral disease control (oral hygiene instructions) is recorded only when formally presented in a manner consistent with the team's established patient education program.

c. Indirect Patient Care Tasks:

- 1) Dental assistant duties are those that can be accomplished by a chair side assistant without DTA training.
- 2) Sterilization should not be included as a dental assistant duty.

4. In addition to how frequently you perform these tasks, you also will be asked to evaluate how frequently you expect and prefer to do the tasks. Several measures of different aspects of job satisfaction will also be assessed.

5. A biographical data sheet is included to provide information about your background. We ask you to identify yourself; we request this because a follow-up survey is planned.

6. Please be as precise as you can. The information will be used to inform future DTAs about how they will be employed, what tasks they can expect to perform, and how frequently. You will be helping other DTAs by providing accurate information about what you do as a DTA.

7. Thank you for your cooperation.

BIOGRAPHICAL DATA SHEET

Name _____

Today's date _____

Rank or rating _____

Age on last birthday (in years) _____

Marital status (circle one) single married divorced separated

Type and duration of work experience:

years worked as a: (YEARS)

dental assistant:

school trained:

military

civilian

OJT

hygienist:

school trained:

military

civilian

OJT

DTA

prosthetics

other

Date of completion of DTA training

(expected date if training is not completed) _____

How many years of civilian education have you completed?

(for example, if you graduated from high school write 12) _____

SUBJECT: Instructions for Administration of Study Materials

1. The purpose of the study is to determine attitudes of team dentists and dental therapy assistants (DTAs), how their attitudes may change (as evaluated by a three month follow-up), and whether the attitudes (preferences and expectations) are related to job satisfaction and frequency of performance of tasks. The results are expected to provide assistance in evaluating the present Program of Instruction for the DTA course. The study has been approved by the Health Services Command Study Advisory Committee.

2. The survey instruments are in individual packets which will be given to each DTA and dentist working with the DTAs individually. Inclosure 1 contains a copy of the survey instruments (the packet for each DTA). It contains a biographical data sheet, three job satisfaction scales, three attitude scales (expectations and preferences), and twenty work tally sheets. The study will cover 21 consecutive work days, Inclosure 2 gives a recommended timetable for the study. The sequence of events is as follows:

a. On Friday, 4 October give all DTAs their individual packets. On the same Friday afternoon have the DTAs fill out: the biographical data scale, a job satisfaction scale, and an attitude scale surveying their expectations and preferences for the next ten consecutive work days.

b. On Monday, 7 October of the second week each dentist working with the DTAs should be given the sheet for recording their expectations for the DTAs performances (see inclosure 3).

c. Also on Monday, 7 October and continuing for the next two weeks (ten work days), each DTA is to fill out on each day a worksheet describing the frequency of performance of the list of tasks. A running tally is recommended, that is, each time a task is performed, the DTA should make a mark beside that task on the worksheet. The total number of tallies per task should be recorded at the end of each day on the worksheet. Then the worksheet should be replaced by a new one for the next day.

d. On Friday, 18 October of the third week, after the DTAs have completed their daily tally sheet, each DTA will take a satisfaction scale and an attitude scale. The attitude scale is to measure their expectations for the next two weeks.

e. On Monday, 21 October through 1 November, administer to DTAs the performance worksheets. Also on 1 November, administer to DTAs the satisfaction scale and the attitude scale (expectations and preferences).

SUBJECT: Instructions for Administration of Study Materials

3. The results obtained will be as follows:

a. Dentist's expectations.

b. For each DTA

(1) Three Satisfaction Scales

(2) Three Attitude Scales

(3) One Biographical Data Sheet

(4) Twenty Work Tally Sheets

4. Analysis will be made of the frequency of performance of tasks by DTAs, the preferences and expectations of the DTAs, the DTA's job satisfaction, and biographical information. The relationship between the DTA's performance and the dentist's expectations will also be examined.

5. We appreciate your cooperation.

SUBJECT: Timetable for DTA Study

FIRST WEEK -

4 October Friday Receive packets
Administer to DTAs
1. Attitude scale (expectations and preferences)
2. Satisfaction scale
3. Biographical data scale

SECOND WEEK -

7 October Monday Administer expectations sheet to dentists working with DTAs
Monday thru
Friday Administer to DTAs actual performance worksheets (one/day)

THIRD WEEK -

14 October Monday thru
Thursday Administer to DTAs actual performance worksheets (one/day)
Friday Administer to DTAs
1. Actual performance worksheet
2. Satisfaction scale
3. Attitude scale (expectations and preferences)

FOURTH WEEK -

21 October Monday thru
Friday Administer to DTAs actual performance worksheets (one/day)

FIFTH WEEK -

28 October Monday thru
Thursday Administer to DTAs actual performance worksheets (one/day)
1 November Friday Administer to DTAs
1. Actual Performance worksheet
2. Satisfaction scale
3. Attitude scale (expectations and preferences)

Incl 2

APPENDIX C

HSPA-D

5 March 1975

SUBJECT: Phase I Study: Attitudes of Team Dentists and DTAs

THRU: Deputy for Dental Activities
US Army MEDDAC
Fort Belvoir, VA 22060

TO: Resources Training Officer
Dental Activity
US Army MEDDAC
Fort Belvoir, VA 22060

1. The material from the Phase I survey of the DTAs and dentists has been summarized; inclosed as Incl 1 is the survey at your post. For each task surveyed the average (\bar{X}), standard deviation (S.D.) and sample size (N) are included for the DTAs' actual ten-day performance, preferences, expectations and the dentists' expectation. In comparing the distribution of the averages and standard deviation for each task, one should consider the degree of overlap between the means as a function of the standard deviation (plus or minus around the average).

2. This summary is provided for informational purposes. Similar information will be provided following the Phase II survey. Sufficient copies of the survey are included for each DTA and dentists working with the DTAs. A perusal of the summary sheets will reveal the tasks where the distributions converge and when they are far apart.

3. Your cooperation in Phase I was excellent and is greatly appreciated. Please address questions on content of the survey or for clarification to:

Dr. David Mangelsdorft
AUTOVON 471-4541/3331/3116
Health Care Studies Division
Academy of Health Sciences, US Army
Fort Sam Houston, TX 78234

1 Incl
as

JOE L. CHEATHAM
Colonel, DC
Preventive Dentistry Officer

51

Identical letter sent to Bragg, Carson, Dix, B. Harrison, Huachuca, Knox Lee, Meade, Ft Ord, Rucker, Leonard Wood.

HEALTH CARE STUDIES DIVISION DTA WORKSHEET

Below are a series of tasks. How frequently did you perform each task today? Please try to be as accurate as possible in entering the total number of times you did the task. If you feel that using a tally count during the day would help please use it.

DTAs NAME _____

CLINIC NAME/NUMBER _____

TODAY'S DATE _____

	TOTAL TIMES/DAY		TOTAL TIMES/DAY
I RESTORATION TASKS		9. Expose, process, or mount periapical radiographs _____	
1. Place rubber dam _____		10. Expose, process, or mount panoramic radiographs _____	
2. Place amalgam restoration _____		11. Administrative duties (acting as NCOIC) _____	
3. Place composite restoration _____		12. DTA coordinator duties _____	
4. Place resin restoration _____			
5. Polish restoration _____		IV OTHER TASKS	
6. Place intermediate base _____		1. ANUG management _____	
7. Place pulp capping material _____		2. Pack gingival retraction cord _____	
8. Place matrix retain w/ celluloid strip _____		3. Place tissue conditioning materials _____	
9. Place sedative/temporary filling _____		4. Prosthodontic- select shade/shape of teeth _____	
10. Construct/place temporary crowns _____		5. Take primary impression _____	
11. Insert permanent bridge _____		6. Place/remove periodontal pack _____	
12. Adjust restoration occlusion _____		7. Post-operative periodontal debridement _____	
		8. Test for tooth vitality _____	
II PREVENTIVE TASKS		9. Irrigate/dry root canal _____	
1. Prophylaxis _____		10. Medicate root canal _____	
2. Topical fluoride application _____		11. Place/remove root canal seal _____	
3. Hand scaling _____		12. Construct/place orthodontic appliances _____	
4. Oral disease control (Patient education) _____		13. Construct/place temporary splints _____	
5. Pit and fissure sealing technique _____		14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics _____	
6. Cavitron _____		15. Suture removal _____	
7. Community & military prevention (Phase I) _____		16. Management of dry socket _____	
		17. Administer basic resuscitative measures _____	
III INDIRECT PATIENT CARE TASKS		18. Obtain patient's pulse _____	
1. Dental assistant duties _____		19. Obtain patient's blood pressure _____	
2. Sterilization techniques _____		20. Obtain patient's temperature _____	
3. Prescription writing _____			
4. Pour and trim study model _____			
5. Examine/chart existing restorations _____			
6. Appointment scheduling _____			
7. Review patients dental/medical history _____			
8. Expose, process, or mount bitewing radiographs _____			

List any other tests that are not mentioned above in the space below.

To what extent were you assisted by a chairside assistant on each patient?

PATIENT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	TOTAL
a. Full-time															
b. Part-time															
c. Not at all															
d. Broken Appointment															
GRAND TOTAL															

AHS Form 96 (OT)
21 Jan 1975

DTAs EXPECTATIONS & PREFERENCES

Consider the following list of tasks. Estimate the total number of times you expect to perform each of these tasks during the following 10 days. Write that number in the space for 'expect' next to each task. Now consider how frequently you would prefer to perform each of the tasks during the same 10 working days. Write this total in the space for 'prefer.' Please make one entry in both the 'expect' and 'prefer' columns for each task as would be performed over the next 10 consecutive working days.

DTAs NAME _____

CLINIC NAME/NUMBER _____

TODAY'S DATE _____

	EXPECT	PREFER		EXPECT	PREFER
I RESTORATION TASKS			9. Expose, process, or mount periapical radiographs _____		
1. Place rubber dam _____			10. Expose, process, or mount panoramic radiographs _____		
2. Place amalgam restoration _____			11. Administrative duties (acting as NCOIC) _____		
3. Place composite restoration _____			12. DTA coordinator duties _____		
4. Place resin restoration _____					
5. Polish restoration _____			IV OTHER TASKS		
6. Place intermediate base _____			1. ANUG management _____		
7. Place pulp capping material _____			2. Pack gingival retraction cord _____		
8. Place matrix retain on celluloid strip _____			3. Place tissue conditioning materials _____		
9. Place sedative/temporary filling _____			4. Prosthodontic- select shade/shape of teeth _____		
10. Construct/place temporary crown _____			5. Take primary impression _____		
11. Insert permanent bridge _____			6. Place/remove periodontal pack _____		
12. Adjust restoration occlusion _____			7. Post-operative periodontal debridement _____		
II PREVENTIVE TASKS			8. Test for tooth vitality _____		
1. Prophylaxis _____			9. Irrigate/dry root canal _____		
2. Topical fluoride application _____			10. Medicate root canal _____		
3. Hand scaling _____			11. Place/remove root canal seal _____		
4. Oral disease control (Patient education) _____			12. Construct/place orthodontic appliances _____		
5. Pit and fissure sealing technique _____			13. Construct/place temporary splints _____		
6. Cavitron _____			14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics _____		
7. Community & military prevention (Phase I) _____			15. Suture removal _____		
III INDIRECT PATIENT CARE TASKS			16. Management of dry socket _____		
1. Dental assistant duties _____			17. Administer basic resuscitative measures _____		
2. Sterilization techniques _____			18. Obtain patient's pulse _____		
3. Prescription writing _____			19. Obtain patient's blood pressure _____		
4. Pour and trim study model _____			20. Obtain patient's temperature _____		
5. Examine/chart existing restorations _____			List any other tests that are not mentioned above in the space below. _____		
6. Appointment scheduling _____					
7. Review patients dental/medical history _____					
8. Expose, process, or mount bitewing radiographs _____					

Number of patients you expect to see _____, prefer to see _____ over the next 10 days.

Number of days you expect to work _____, prefer to work _____ over the next 10 working days.

Do you expect any changes in the next 10 working days like rotating through different clinics, changing dentists, having new assistants, other DTAs going on leave, holidays, if yes what changes: _____

Patients are received mostly from: Scheduled Appointments, Sick Call, Other (Circle one).

AHS Form 97 (OI)

21 Jan 1975

SATISFACTION SCALE

DATE _____

DESCRIPTION OF THE WORK, PAY, PROMOTIONS, CO-WORKERS, AND TEAM DENTIST ON YOUR JOB

Below are five groups of items. Each group represents some aspect of your present job. We would like you to indicate your feelings about these aspects by circling "Y" (yes) if the item is descriptive of your present job. "N" (no) if it is not descriptive and "?" if you can't decide.

WORK		CO-WORKERS (other than team dentist)	
Fascinating	Y N ?	Stimulating	Y N ?
Routine	Y N ?	Boring	Y N ?
Satisfying	Y N ?	Slow	Y N ?
Boring	Y N ?	Ambitious	Y N ?
Good	Y N ?	Stupid	Y N ?
Creative	Y N ?	Responsible	Y N ?
Respected	Y N ?	Fast	Y N ?
Hot	Y N ?	Intelligent	Y N ?
Pleasant	Y N ?	Easy to make enemies	Y N ?
Useful	Y N ?	Talk too much	Y N ?
Tiresome	Y N ?	Smart	Y N ?
Healthful	Y N ?	Lazy	Y N ?
Challenging	Y N ?	Unpleasant	Y N ?
On your feet	Y N ?	No privacy	Y N ?
Frustrating	Y N ?	Active	Y N ?
Simple	Y N ?	Narrow interests	Y N ?
Endless	Y N ?	Loyal	Y N ?
Gives sense of accomplishment	Y N ?	Hard to meet	Y N ?

TEAM DENTIST AS SUPERVISOR

Asks my advice	Y N ?
Hard to please	Y N ?
Impolite	Y N ?
Praises good work	Y N ?
Tactful	Y N ?
Influential	Y N ?
Up-to-date	Y N ?
Doesn't supervise enough	Y N ?
Quick-tempered	Y N ?
Tells me where I stand	Y N ?
Annoying	Y N ?
Stubborn	Y N ?
Knows job well	Y N ?
Bad	Y N ?
Intelligent	Y N ?
Leaves me on my own	Y N ?
Around when needed	Y N ?
Lazy	Y N ?

We appreciate your cooperation.

PAY

Income adequate for normal expenses	Y N ?
Satisfactory profit sharing	Y N ?
Barely live on income	Y N ?
Bad	Y N ?
Income provides luxuries	Y N ?
Insecure	Y N ?
Less than I deserve	Y N ?
Highly paid	Y N ?
Underpaid	Y N ?

PROMOTIONS

Good opportunity for advancement	Y N ?
Opportunity somewhat limited	Y N ?
Promotion on ability	Y N ?
Dead-end-job	Y N ?
Good chance for promotion	Y N ?
Unfair promotion policy	Y N ?
Infrequent promotions	Y N ?
Regular promotions	Y N ?
Fairly good chance for promotion	Y N ?

DENTIST EXPECTATION SHEET

CLINIC NAME/NUMBER _____ RANK _____ YEARS SINCE GRADUATION _____

You have been selected to be the leader of a team employing fully trained DTAs. Please rate the following list of tasks in terms of how frequently you expect one DTA to perform each task over a 10-day period. For example, the task 'place a rubber dam' would be expected to be performed very frequently (VF) and an average of 50 times over a 10-day period (five times/day x 10 work days).

S = seldom or never
I = infrequently
F = frequently

VF = very frequently
NA = not applicable

TOT = total number of times expected to be performed over 10 days

	S	I	F	VF	NA	TOT
I RESTORATION TASKS						
1. Place rubber dam						
2. Place amalgam restoration						
3. Place composite restoration						
4. Place resin restoration						
5. Polish restoration						
6. Place intermediate base						
7. Place pulp capping material						
8. Place matrix retain or/ celluloid strip						
9. Place sedative/temporary filling						
10. Construct/place temporary crown						
11. Insert permanent bridge						
12. Adjust restoration occlusion						
II PREVENTIVE TASKS						
1. Prophylaxis						
2. Topical fluoride application						
3. Hand scaling						
4. Oral disease control (Patient education)						
5. Pit and fissure sealing technique						
6. Cavitron						
7. Community & military prevention (Phase I)						
III INDIRECT PATIENT CARE TASKS						
1. Dental assistant duties						
2. Sterilization techniques						
3. Prescription writing						
4. Pour and trim study model						
5. Examine/chart existing restorations						
6. Appointment scheduling						
7. Review patients dental/medical history						
8. Expose, process, or mount bitewing radiographs						
9. Expose, process, or mount periapical radiographs						
10. Expose, process, or mount panoramic radiographs						
11. Administrative duties (acting as NCOIC)						
12. DTA coordinator duties						
IV OTHER TASKS						
1. ANUG management						
2. Pack gingival retraction cord						
3. Place tissue conditioning materials						
4. Prosthodontic: select shade/shape of teeth						
5. Take primary impression						
6. Place/remove periodontal pack						
7. Post-operative periodontal debridement						
8. Test for tooth vitality						
9. Irrigate/dry root canal						
10. Medicate root canal						
11. Place/remove root canal seal						
12. Construct/place orthodontic appliances						
13. Construct/place temporary splints						
14. Pre- and post-operative instructions for surgery, endodontics, periodontics, or prosthetics						
15. Suture removal						
16. Management of dry socket						
17. Administer basic resuscitative measures						
18. Obtain patient's pulse						
19. Obtain patient's blood pressure						
20. Obtain patient's temperature						
List any other tests that are not mentioned above in the space below.						

How many patients would you expect to see in a 10-day work period per DTA? _____

Have you worked with DTAs before? Yes _____ No _____ If yes, how long (months)? _____

How many DTAs do you work with? _____ How many dental assistants? _____

On back of sheet, please write down which DTAs work with you.

AHS Form 94 (OT)
21 Jan 1975

INSTRUCTIONS TO DTAS

1. It is recognized that working conditions vary between clinics and may even change over time. In order to add to the study from the fall, we would appreciate your assistance in this study.
2. Your task is to orient a new DTA at your clinic. To assist you in this task, the following method is proposed. The purpose of this study is to determine how frequently you perform a variety of tasks which might be expected of DTAs. It is recommended that you use the folder packet as a workbook to retain the worksheet that you fill out each day. For example, at the end of each work day complete the worksheet on the right side of the folder and transfer it to the left side. This will leave a new blank worksheet on the right side of the folder for the following day.
3. In filling out the worksheet each day, room has been left next to each task for you to place tally marks, if you desire, to keep track of the tasks performed. For example, if you "Expose, process or mount bitewing radiographs", place a mark on your worksheet next to that task. At the end of the day, add up your tally count and enter the total number for that task immediately to the right of the tally marks under the total column. At the bottom of each work sheet, enter the extent to which you were assisted for each patient. Make an entry for each patient during the day and total the number of patients seen. If you work only part of a day, please write a note to that effect in the assistant section (i.e. 1/2, 3/4 day).
4. In general, most of the tasks are self explanatory. However, some tasks may appear to require more than one tally. If there is an overlap between categories, mark both. Exceptions would include the following:
 - a. Restorative Tasks:
 - 1) If more than one restoration is performed on a single patient, place a tally for each restoration.
 - 2) For polishing restorations, record one tally per patient regardless of the number done. Do not indicate that restorations were polished if the procedure was accomplished in conjunction with a prophylaxis.
 - b. Preventive Tasks: Oral disease control (oral hygiene instructions) is recorded only when formally presented in a manner consistent with the team's established patient education program.
 - c. Indirect Patient Care Tasks:
 - 1) Dental assistant duties are those that can be accomplished by a chair side assistant without DTA training.
 - 2) Sterilization should not be included as a dental assistant duty.
5. In addition to how frequently you perform these tasks, you also will be asked to evaluate how frequently you expect and prefer to do the tasks. Several measures of different aspects of job satisfaction will also be assessed.
6. A biographical data sheet is included to provide information about your background. We ask you to identify yourself. If you chose not to use your name, use a code number. Please enter the date you complete(d) DTA training.
7. Please be as precise as you can. The information will be used to inform future DTAs about how they will be employed, what tasks they can expect to perform, and how frequently. You will be helping other DTAs by providing accurate information about what you do as a DTA.
8. Thank you for your cooperation.

BIOGRAPHICAL DATA SHEET

Name _____ Clinic _____
Today's date _____ Post _____
Rank or rating _____
Age on last birthday (in years) _____
Marital status (circle one) single married divorced separated widow
Sex (circle one) female male
Date of completion of DTA training
(expected date if training is not completed) _____
How many years of civilian education have you completed?
(For example, if you graduated from high school write 12) _____

INSTRUCTIONS FOR SATISFACTION ATTITUDES

1. Do you work with only one dentist? Yes No
2. If no,
 do you rotate from chair to chair Yes No
 or does the dentist rotate between chairs Yes No
3. In evaluating your attitude toward your Supervisor (Team Dentist) choose the one you work with most frequently. If you work with more than one dentist very frequently, rate your Supervisor in general.
4. Who are your co-workers, that is, the individuals you work with most frequently? (Circle those that are applicable)

military dental assistant	civilian dental assistant
military dental hygienist	civilian dental hygienist
military DTA	civilian DTA
lab technician	other _____
5. In general, are your co-workers generally working with you? Yes No
 If no,
 do your co-workers rotate? Yes No
 or do you not have permanent co-workers
 that is, they are only temporary help Yes No
6. In determining your attitude toward your Co-workers, choose the one you work with most frequently. If you work with more than one very frequently, rate your Co-workers in general.

SUBJECT: Instructions for Administration of Survey Materials

1. The purpose of the study is to determine attitudes of team dentists and dental therapy assistants (DTAs), how their attitudes may change (as evaluated by a three-month follow-up), and whether the attitudes (preferences and expectations) are related to job satisfaction and frequency of performance of tasks. The results are expected to provide assistance in describing the present Program of Instruction for the DTA course. The study has been approved by the Health Services Command Study Advisory Committee.

2. The survey instruments are in individual packets which will be given to each DTA and dentist working with the DTAs individually. Inclosure 1 contains a copy of the survey instruments (the packet for each DTA). It contains a biographical data sheet, three job satisfaction scales, three attitude scales (expectations and preferences), and twenty work tally sheets. The study will cover 21 consecutive work days. Inclosure 2 gives a recommended timetable for the study. The sequence of events is as follows:

a. On Friday 28 March give all DTAs their individual packets. On the same Friday afternoon have the DTAs fill out: the biographical data sheet, a job satisfaction scale, and an attitude scale surveying their expectations and preferences for the next ten consecutive work days.

b. On Monday, 4 April of the second week each dentist working with the DTAs should be given the sheet for recording their expectations for one DTA's performance (see inclosure 3).

c. Also on Monday, 4 April and continuing for the next two weeks (ten work days), each DTA is to fill out on each day a worksheet describing the frequency of performance of the list of tasks. A running tally is recommended, that is, each time a task is performed, the DTA should make a mark beside that task on the worksheet. The total number of tallies per task should be recorded at the end of each day on the worksheet. Then the worksheet should be replaced by a new one for the next day.

d. On Friday, 14 April, of the third week, after the DTAs have completed their daily tally sheet, each DTA will take a satisfaction scale and an attitude scale. The attitude scale is to measure their expectations for the next two weeks.

e. On Monday 18 April through 28 April administer to DTAs the performance worksheets. Also on 28 April, administer to DTAs the satisfaction scale and the attitude scale (expectations and preferences).

SUBJECT: Instruction for Administration of Survey Materials

3. The results obtained will be as follows:

a. Dentist's expectations for one DTA.

b. For each DTA.

(1) Three Satisfaction Scales

(2) Three Attitude Scales

(3) One Biographical Data Sheet

(4) Twenty Work Tally Sheets

4. Analysis will be made of the frequency of performance of tasks by DTA, the preferences and expectations of the DTAs, the DTA's job satisfaction, and biographical information. The relationship between the DTA's performance and the dentist's expectations will also be examined.

5. We appreciate your cooperation.

SUBJECT: Timetable for Final Phase of DTA Study

FIRST WEEK:

28 March	Friday	Receive packets Administer to DTAs 1. Attitude scale (expectations and preferences) 2. Satisfaction scale 3. Biographical data inventory
----------	--------	--

SECOND WEEK:

4 April	Monday	Administer expectations sheet to dentists working with DTAs
	Monday thru Friday	Administer to DTAs actual performance worksheets (one/day)

THIRD WEEK:

11 April	Monday thru Friday Friday	Administer to DTAs actual performance worksheets (one/day) Administer to DTAs 1. Satisfaction scale 2. Attitude scale (expectations and preferences)
----------	---------------------------------	--

FOURTH WEEK:

18 April	Monday thru Friday	Administer to DTAs actual performance worksheets (one/day)
----------	-----------------------	---

FIFTH WEEK:

25 April	Monday thru Friday Friday	Administer to DTAs actual performance worksheets (one/day) Administer to DTAs 1. Satisfaction scale 2. Attitude scale (expectations and preferences)
----------	---------------------------------	--

APPENDIX E

HEALTH CARE STUDIES DIVISION PHASE I

DTA Phase I Overall Responses

RESTORATIVE	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	22.73	18.31	306	44.57	27.36	298	38.85	25.65	298	55.65	31.36	124
2	46.70	26.86		77.16	46.96		68.03	44.87		89.80	55.53	
3	10.98	9.61		22.07	22.77		19.29	20.53		32.26	20.84	
4	2.24	4.19		5.45	12.17		4.57	10.62		3.31	10.89	
5	8.16	13.47		20.59	29.99		15.74	24.00		34.75	41.94	
6	45.94	31.41		72.33	53.08		68.76	52.04		75.92	56.61	
7	5.32	12.88		12.45	22.92		13.39	22.39		30.26	38.76	
8	32.39	20.43		60.38	44.56		56.90	38.93		87.12	55.23	
9	7.13	8.90		12.88	18.99		14.31	21.24		23.19	19.91	
10	1.56	3.72		4.06	7.50		2.43	5.16		5.07	8.27	
11	0.12	0.50		1.62	6.42		0.32	1.55		0.35	1.08	
12	10.50	17.40		22.13	40.76		22.78	39.46		33.34	48.66	
PREVENTIVE												
1	7.28	10.39	306	10.41	9.85	298	11.42	11.44	298	20.37	21.67	124
2	5.00	14.89		8.54	10.52		8.36	11.46		14.00	21.07	
3	5.72	6.62		7.82	8.59		8.79	9.62		13.03	14.22	
4	17.47	20.78		28.26	32.07		27.29	28.22		42.70	45.26	
5	0.38	1.68		1.91	5.13		1.29	6.80		1.94	6.03	
6	3.71	5.88		8.19	11.58		7.70	11.12		13.45	15.48	
7	3.65	37.63		2.07	9.61	297	1.78	11.38		4.26	16.76	123

HEALTH CARE STUDIES DIVISION PHASE I
DTA Phase I Overall Responses

INDIRECT PATIENT CARE	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	40.10	35.33	303	33.23	32.46	298	49.29	38.70	295	51.22	40.65	123
2	20.38	27.27	306	20.54	33.75		27.78	36.82	298	30.84	40.99	124
3	0.26	1.19		1.27	3.24		0.56	2.29		1.17	4.05	
4	0.74	1.97		3.53	6.79		2.01	5.06		3.91	11.88	
5	18.86	25.07		26.09	30.38		24.66	28.78		17.87	33.49	
6	18.90	28.00		16.63	31.34		18.58	30.16		35.48	55.88	
7	42.40	26.44		57.39	43.80		56.41	32.18		65.69	43.96	
8	3.34	8.05		5.29	10.36		4.40	11.84		8.29	19.26	
9	4.16	14.41		4.77	12.74		4.29	13.43		7.28	17.10	
10	0.11	0.73		1.30	3.68		0.45	3.09		2.66	13.17	
11	0.05	0.56		0.64	5.60		0.16	2.67		0.78	6.81	
12	1.31	9.63		2.75	10.13		1.99	9.30		2.26	9.33	123
PATIENTS												
Full	20.26	21.48	296									
Part	17.99	17.72										
Not at all	16.26	18.45										
No show	0.08	0.83	294									
Total Seen	55.25	19.69	296	73.69	28.57	300	68.10	24.02	300	105.92	46.44	126
Days	8.10	1.42	306									

HEALTH CARE STUDIES DIVISION PHASE I
DTA Phase I Overall Responses

OTHER	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	0.21	1.20	305	1.57	5.59	298	0.98	2.50	298	1.44	2.64	123
2	0.49	1.59		2.56	5.92		1.29	3.27		1.94	4.09	
3	0.12	0.77		1.64	5.85		0.64	3.05		0.48	1.14	
4	0.31	1.18		2.35	5.81		1.00	2.33		1.78	4.30	
5	2.11	4.88	306	5.13	7.91		3.53	6.52		6.73	11.67	
6	0.15	1.88		1.98	6.33		0.32	1.95		0.79	3.08	
7	0.13	1.90		1.51	6.42		0.33	2.60		1.47	9.19	
8	0.40	1.53		2.53	5.68		1.33	2.83		2.70	6.84	
9	1.77	5.49		4.07	7.67		2.86	6.20		4.78	7.35	
10	1.66	5.15		4.20	7.72		3.07	6.22		5.09	9.26	
11	1.22	4.97		3.61	7.50		2.37	5.84		4.44	7.57	
12	0.84	7.23		1.76	6.24		0.82	5.66		1.34	5.70	
13	0.03	0.33		1.12	5.18		0.08	0.68		0.31	1.87	
14	1.57	5.06		4.94	11.23		3.31	8.18		8.51	13.04	
15	0.27	1.18		3.41	7.43		0.78	3.39		2.18	5.61	
16	0.07	0.66		1.69	5.71		0.16	0.84		0.29	0.75	
17	0	0		0.49	4.91		0.04	0.29		0.23	1.29	
18	0.04	0.40		3.31	12.08		0.83	5.01		1.36	3.94	
19	0.93	9.16		4.24	13.05		1.29	5.71		2.13	5.76	122
20	0.07	0.58		2.86	11.33		0.65	4.28		1.43	3.54	122

APPENDIX F

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II OVERALL RESPONSES

	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
RESTORATIVE												
1	22.61	20.57	277	41.77	32.70	271	36.91	29.53	271	46.62	33.27	135
2	54.80	26.17	271	84.86	50.02	269	75.62	44.95	269	90.93	55.45	135
3	11.36	11.07	277	24.81	29.29	271	22.42	25.80	271	37.48	29.24	135
4	4.49	7.84	277	7.66	18.59	270	6.61	17.51	270	3.89	12.00	135
5	10.77	15.60	277	24.94	32.44	269	23.91	39.74	270	33.11	34.19	135
6	39.50	36.76	277	78.80	56.77	268	78.68	55.14	267	80.82	68.53	135
7	7.12	14.42	277	15.37	30.07	271	15.49	28.93	271	30.64	38.66	135
8	40.03	23.93	271	62.70	48.59	267	64.00	46.80	268	84.63	57.21	135
9	7.70	8.30	277	12.20	14.19	271	14.49	14.25	271	29.59	40.66	135
10	1.49	3.94	277	3.71	6.46	271	2.69	6.27	271	6.65	13.45	135
11	0.16	0.77	277	1.01	2.45	271	0.36	1.34	271	0.45	1.41	135
12	14.34	21.64	277	23.36	40.41	270	23.60	43.96	271	22.05	33.46	135
PREVENTIVE												
1	8.98	8.64	277	11.50	15.31	271	14.44	18.11	271	18.96	16.64	135
2	7.02	9.76	277	9.90	16.75	271	11.95	18.86	271	14.25	16.89	135
3	7.97	8.18	277	9.16	14.86	271	11.97	17.43	271	11.91	12.02	135
4	23.10	23.05	277	31.28	31.05	271	32.76	30.32	271	44.24	38.55	135
5	0.45	2.48	277	1.45	3.92	271	0.84	3.73	271	1.40	4.58	135
6	5.88	7.87	277	8.23	15.23	271	10.44	18.01	271	13.99	24.99	135
7	0.96	6.15	277	1.54	7.43	271	1.67	7.79	271	6.31	23.34	135

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II OVERALL RESPONSES

INDIRECT PATIENT CARE	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	45.56	34.37	275	33.92	34.37	270	46.62	36.39	266	50.68	42.06	134
2	20.40	25.39	277	16.45	27.77	271	21.94	29.92	270	32.05	42.66	134
3	-0.31	0.94	277	1.46	8.45	271	0.48	1.37	270	1.45	5.31	134
4	1.00	4.27	277	2.70	7.58	271	1.97	7.76	271	3.90	7.82	134
5	24.98	27.27	276	27.20	33.87	270	27.40	33.05	270	21.41	36.63	134
6	19.73	29.31	277	17.50	29.17	269	21.52	31.97	269	28.05	45.66	134
7	49.84	27.94	277	59.23	39.96	269	59.28	37.86	269	68.61	49.70	134
8	3.97	11.45	277	5.63	15.69	271	5.35	17.42	271	8.67	19.29	134
9	3.26	10.94	277	5.03	14.45	271	4.73	15.73	271	7.20	19.90	134
10	0.10	0.55	277	1.04	2.93	271	0.90	6.63	271	3.18	14.93	134
11	0.34	3.52	277	1.01	8.39	271	0.55	5.59	271	0.22	1.06	134
12	1.49	8.69	277	2.38	9.98	271	1.86	9.56	271	1.33	5.02	134
PATIENTS												
Full												
Part												
Not at all												
No show	6.18	6.36	272									
Total Seen	62.44	16.72	272	78.60	26.77	264	74.15	25.38	266	90.09	38.35	137
Days												

DTA PHASE II OVERALL RESPONSES

OTHER	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	0.32	1.20	277	1.64	7.23	271	1.64	7.53	271	2.11	5.03	134
2	0.64	2.33	277	2.26	5.69	271	1.43	6.53	271	2.98	7.75	134
3	0.10	0.72	277	1.29	3.88	271	0.64	3.59	271	0.99	3.35	134
4	0.29	1.11	277	2.12	5.70	271	1.43	5.85	271	2.50	6.83	134
5	2.24	5.84	277	4.81	7.42	271	3.59	5.90	271	8.30	11.02	134
6	0.05	0.46	277	1.45	4.25	271	0.46	3.23	271	1.39	5.51	134
7	0.07	0.44	277	1.13	4.43	271	0.49	3.32	271	1.32	5.36	134
8	0.46	2.54	277	2.47	6.22	271	1.84	6.77	271	3.06	6.73	134
9	1.70	5.43	277	4.19	7.56	271	3.40	8.55	271	5.31	8.06	134
10	1.74	5.16	277	4.24	7.38	271	3.54	8.52	271	5.76	8.55	134
11	0.91	2.98	277	3.38	6.86	271	2.51	7.70	271	3.96	6.42	134
12	0.64	4.88	277	1.57	5.67	271	0.81	4.99	271	1.08	3.73	134
13	0.00	0.10	277	0.49	1.84	271	0.07	0.54	271	0.23	1.27	134
14	1.82	6.08	277	4.08	7.26	271	3.21	6.58	271	9.35	15.11	134
15	0.22	0.79	277	3.01	6.18	271	1.15	4.53	271	3.12	7.66	134
16	0.04	0.31	277	1.26	3.81	271	0.36	2.01	271	1.13	4.73	134
17	0	0	277	0.83	6.98	271	0.47	6.47	271	0.36	2.66	134
18	0.71	3.65	277	4.46	16.75	271	1.94	8.57	271	3.85	12.58	134
19	1.05	4.37	277	5.56	17.77	271	2.73	9.97	271	5.61	14.39	134
20	0.57	3.32	277	2.86	10.24	271	1.54	6.81	271	3.68	12.50	134

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II FEEDBACK OVERALL RESPONSES

RESTORATIVE	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	18.24	20.69	150	34.92	31.46	146	30.63	29.17	146	39.14	29.92	71
2	52.32	26.04		80.82	50.83	145	70.28	44.24	145	84.16	47.96	
3	10.84	12.21		24.47	33.11	146	20.86	27.92	146	36.50	29.40	
4	5.31	8.26		8.92	21.25	146	7.89	20.63	146	4.32	12.34	
5	9.45	13.57		24.27	32.44	146	21.95	30.84	146	30.54	31.46	
6	59.01	40.11		75.28	60.37	144	74.38	58.68	144	83.11	70.21	
7	8.18	15.14		15.35	30.75	146	15.06	28.39	146	36.22	40.47	
8	39.39	26.30		59.38	52.13	144	59.87	47.98	144	87.53	55.85	
9	8.31	9.37		12.55	14.68	146	14.79	14.66	146	36.42	51.78	
10	1.55	4.42		3.90	7.31	146	2.88	7.61	146	7.30	15.65	
11	0.14	0.63		1.17	2.88	146	0.32	1.37	146	0.54	1.78	
12	14.29	20.55		20.39	36.56	146	19.46	33.78	146	20.00	27.05	
PREVENTIVE												
1	9.94	9.04		12.44	18.61	146	16.23	21.51	146	21.80	20.10	71
2	8.40	11.01		11.74	20.40		15.00	22.40		17.01	18.78	
3	8.75	8.53		10.56	18.39		13.69	20.49		13.53	14.16	
4	20.90	18.87		28.09	32.26		30.67	30.88		46.84	40.34	
5	0.52	2.75		1.84	4.90		1.06	4.65		2.14	5.27	
6	7.03	8.57		10.07	19.67		12.54	22.22		17.47	32.19	
7	1.25	7.84		2.30	9.83		2.18	9.78		6.76	18.16	

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II FEEDBACK OVERALL RESPONSES

INDIRECT PATIENT CARE	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	40.44	28.23	150	31.92	32.45	146	39.13	28.50	145	51.74	42.06	71
2	21.20	25.24		17.82	26.01		21.90	26.92	146	36.33	45.57	
3	-0.33	0.99		2.26	11.41		0.60	1.58	146	1.69	6.46	
4	1.10	4.62		3.39	9.73		2.33	9.60	146	5.22	9.88	
5	29.39	29.73	149	28.85	35.35	145	29.30	33.78	145	23.42	39.90	
6	19.26	27.85	150	18.22	28.77	145	20.06	29.49	145	30.91	51.23	
7	51.32	28.60		56.63	41.54	145	55.93	36.94	145	67.00	50.89	
8	3.67	9.87		4.63	9.86	146	3.82	11.43	146	8.91	21.15	
9	2.25	6.75		3.91	8.90		3.19	10.19	146	6.80	20.65	
10	0.10	0.46		1.15	2.93		0.53	2.74	146	4.92	20.01	
11	0.19	1.39		0.88	8.38		0.27	3.31	146	0.25	0.84	
12	1.74	9.73		2.52	9.18		1.73	8.22	146	2.16	6.39	
PATIENTS												
Full	26.46	25.66	148									
Part	14.90	15.73										
Not at all	23.50	24.70										
No show	5.74	5.88										
Total Seen	65.36	17.23	148	77.99	22.83	142	72.20	19.21	145	83.07	35.73	71
Days	8.63	1.17	150									

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II FEEDBACK OVERALL RESPONSES

OTHER	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	0.47	1.43	150	2.51	9.67	146	2.24	9.94	146	3.04	6.58	71
2	0.62	2.40		2.66	7.28		1.67	8.57		3.64	8.39	
3	0.15	0.95		1.45	4.39		0.60	3.65		1.46	4.44	
4	0.29	1.08		2.23	5.55		1.19	3.96		3.02	8.51	
5	2.38	6.68		5.35	8.63		3.63	6.28		9.39	12.59	
6	0.05	0.46		1.96	5.56		0.74	4.35		2.30	7.35	
7	0.11	0.56		1.30	4.56		0.54	2.45		2.15	7.15	
8	0.63	3.24		3.04	8.14		2.41	9.01		3.80	6.70	
9	1.28	3.91		4.41	8.23		3.56	9.87		5.98	8.64	
10	1.47	4.02		4.40	7.91		3.78	9.87		6.70	9.43	
11	0.59	2.20		3.40	7.82		2.71	9.52		4.28	6.72	
12	0.60	5.61		1.30	3.84		0.59	3.04		0.84	3.44	
13	0.00	0.10		0.64	2.36		0.10	0.72		0.38	1.71	
14	1.76	6.27		4.44	8.39		3.33	7.24		10.36	16.69	
15	0.30	0.92		3.95	7.78		1.80	6.02		4.28	9.91	
16	0.05	0.35		1.54	4.82		0.55	2.63		1.46	6.22	
17	0	0		0.61	3.61		0.04	0.31		0.64	3.63	
18	0.99	4.44		5.57	20.40		2.43	8.85		4.60	13.53	
19	0.71	3.21		5.83	20.33		2.46	9.10		5.83	14.86	
20	1.05	4.47		3.95	12.90		2.63	9.12		4.52	13.62	

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II NO FEEDBACK OVERALL RESPONSES

RESTORATIVE	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	27.77	19.27	127	49.77	32.43	125	44.25	28.34	125	54.92	35.03	64
2	57.73	26.12		89.59	48.83	124	81.87	45.14	124	98.43	62.26	
3	11.98	9.56		25.21	24.20	125	24.23	23.07	125	38.56	29.25	
4	3.53	7.22		6.17	14.82	124	5.10	12.82	124	3.42	11.69	
5	12.34	17.64		25.74	32.55	123	26.21	48.19	124	35.95	37.03	
6	60.08	32.50		82.90	52.23	124	83.72	50.46	123	78.28	67.08	
7	5.88	13.47		15.39	29.38	125	15.98	29.66	125	24.45	35.85	
8	40.78	20.86		66.60	43.98	123	68.79	45.11	124	81.42	58.96	
9	6.98	6.79		11.79	13.65	125	14.13	13.80	125	22.01	20.65	
10	1.43	3.30		3.48	5.33	125	2.48	4.20	125	5.93	10.55	
11	0.18	0.91		0.82	1.83	125	0.40	1.31	125	0.34	0.83	
12	14.41	22.95		26.85	44.43	124	28.44	53.21	125	24.34	39.47	
PREVENTIVE												
1	7.84	8.02	127	10.41	10.17	125	12.34	12.86	125	15.81	11.00	64
2	5.40	7.77		7.75	10.76		8.40	12.80	125	11.18	14.02	
3	7.06	7.68		7.52	8.95		9.95	12.78		10.17	8.85	
4	25.69	27.01		35.00	29.26		35.20	29.58		41.35	36.56	
5	0.37	2.13		1.00	2.24		0.57	2.20		0.57	3.54	
6	4.52	6.71		6.09	6.62		7.99	10.82		10.12	12.16	
7	0.61	3.13		0.64	2.39		1.07	4.42		5.82	28.15	

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II NO FEEDBACK -OVERALL RESPONSES

INDIRECT PATIENT CARE	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	51.71	39.79	125	36.28	36.50	124	55.59	42.44	121	49.49	42.37	63
2	19.44	25.63	127	14.84	29.72	125	22.00	33.17	125	27.23	38.92	
3	-0.27	0.88		0.52	1.32		0.35	1.07		1.19	3.63	
4	0.89	3.84		1.88	3.62		1.54	4.79		2.55	4.14	
5	19.80	23.13		25.28	32.09		25.20	32.17		19.15	32.71	
6	20.29	31.05		16.66	29.74		23.23	34.69		24.82	38.59	
7	48.09	27.15		62.27	37.97		63.20	38.69		70.55	48.67	
8	4.33	13.11		6.80	20.48		7.14	22.40		8.39	17.11	
9	4.45	14.35		6.35	18.94		6.54	20.28		7.66	19.18	
10	0.09	0.65		0.90	2.94		1.33	9.30		1.22	4.32	
11	0.52	4.98		1.17	8.44		0.88	7.43		0.19	1.28	
12	1.20	7.30		2.20	10.88		2.02	10.95		0.39	2.53	
PATIENTS												
Full	16.94	18.55	124									
Part	22.73	19.94										
Not at all	19.15	17.00										
No show	6.71	6.88										
Total Seen	58.97	15.46	124	79.31	30.82	122	76.50	31.13	121	97.65	39.83	66
Days	8.73	1.18	127									

HEALTH CARE STUDIES DIVISION PHASE II
DTA PHASE II NO FEEDBACK OVERALL RESPONSES

OTHER	DTA ACTUAL			DTA PREFERRED			DTA EXPECTED			DENTISTS' EXPECT		
	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N	\bar{x}	S.D.	N
1	0.15	0.84	127	0.62	1.62	125	0.94	2.66	125	1.07	1.83	63
2	0.68	2.26		1.79	2.88		1.16	2.63		2.23	6.94	
3	-0.04	0.27		1.11	3.20		0.69	3.53		0.46	1.13	
4	0.29	1.14		1.98	5.88		1.72	7.49		1.90	4.21	
5	2.07	4.67		4.19	5.66		3.55	5.46		7.07	8.87	
6	0.05	0.46		0.86	1.58		0.12	0.64		0.36	1.42	
7	0.03	0.26		0.93	4.28		0.43	4.12		0.39	1.51	
8	0.27	1.29		1.80	2.42		1.18	2.01		2.23	6.70	
9	2.22	6.78		3.92	6.71		3.23	6.73		4.55	7.33	
10	2.06	6.25		4.06	6.75		3.26	6.63		4.69	7.35	
11	1.28	3.67		3.36	5.57		2.27	4.79		3.60	6.10	
12	0.68	3.86		1.88	7.24		1.08	6.59		1.36	4.03	
13	0.00	0.09		0.32	0.89		0.03	0.17		0.06	0.35	
14	1.88	5.88		3.67	5.67		3.08	5.74		8.22	13.16	
15	0.13	0.58		1.92	3.20		0.40	1.13		1.82	3.43	
16	0.03	0.25		0.94	2.05		0.13	0.58		0.76	2.02	
17	0	0		1.09	9.52		0.98	9.52		0.04	0.21	
18	0.37	2.40		3.17	11.00		1.37	8.23		3.00	11.45	
19	1.45	5.41		5.25	13.95		3.04	10.94		5.36	13.95	
20	0.00	0.09		1.60	5.54		0.28	0.78		2.74	11.14	

Date		Time		Location		Remarks	
1	10	10	10	10	10	10	10
2	10	10	10	10	10	10	10
3	10	10	10	10	10	10	10
4	10	10	10	10	10	10	10
5	10	10	10	10	10	10	10
6	10	10	10	10	10	10	10
7	10	10	10	10	10	10	10
8	10	10	10	10	10	10	10
9	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
11	10	10	10	10	10	10	10
12	10	10	10	10	10	10	10
13	10	10	10	10	10	10	10
14	10	10	10	10	10	10	10
15	10	10	10	10	10	10	10
16	10	10	10	10	10	10	10
17	10	10	10	10	10	10	10
18	10	10	10	10	10	10	10
19	10	10	10	10	10	10	10
20	10	10	10	10	10	10	10
21	10	10	10	10	10	10	10
22	10	10	10	10	10	10	10
23	10	10	10	10	10	10	10
24	10	10	10	10	10	10	10
25	10	10	10	10	10	10	10
26	10	10	10	10	10	10	10
27	10	10	10	10	10	10	10
28	10	10	10	10	10	10	10
29	10	10	10	10	10	10	10
30	10	10	10	10	10	10	10
31	10	10	10	10	10	10	10
32	10	10	10	10	10	10	10
33	10	10	10	10	10	10	10
34	10	10	10	10	10	10	10
35	10	10	10	10	10	10	10
36	10	10	10	10	10	10	10
37	10	10	10	10	10	10	10
38	10	10	10	10	10	10	10
39	10	10	10	10	10	10	10
40	10	10	10	10	10	10	10
41	10	10	10	10	10	10	10
42	10	10	10	10	10	10	10
43	10	10	10	10	10	10	10
44	10	10	10	10	10	10	10
45	10	10	10	10	10	10	10
46	10	10	10	10	10	10	10
47	10	10	10	10	10	10	10
48	10	10	10	10	10	10	10
49	10	10	10	10	10	10	10
50	10	10	10	10	10	10	10
51	10	10	10	10	10	10	10
52	10	10	10	10	10	10	10
53	10	10	10	10	10	10	10
54	10	10	10	10	10	10	10
55	10	10	10	10	10	10	10
56	10	10	10	10	10	10	10
57	10	10	10	10	10	10	10
58	10	10	10	10	10	10	10
59	10	10	10	10	10	10	10
60	10	10	10	10	10	10	10
61	10	10	10	10	10	10	10
62	10	10	10	10	10	10	10
63	10	10	10	10	10	10	10
64	10	10	10	10	10	10	10
65	10	10	10	10	10	10	10
66	10	10	10	10	10	10	10
67	10	10	10	10	10	10	10
68	10	10	10	10	10	10	10
69	10	10	10	10	10	10	10
70	10	10	10	10	10	10	10
71	10	10	10	10	10	10	10
72	10	10	10	10	10	10	10
73	10	10	10	10	10	10	10
74	10	10	10	10	10	10	10
75	10	10	10	10	10	10	10
76	10	10	10	10	10	10	10
77	10	10	10	10	10	10	10
78	10	10	10	10	10	10	10
79	10	10	10	10	10	10	10
80	10	10	10	10	10	10	10
81	10	10	10	10	10	10	10
82	10	10	10	10	10	10	10
83	10	10	10	10	10	10	10
84	10	10	10	10	10	10	10
85	10	10	10	10	10	10	10
86	10	10	10	10	10	10	10
87	10	10	10	10	10	10	10
88	10	10	10	10	10	10	10
89	10	10	10	10	10	10	10
90	10	10	10	10	10	10	10
91	10	10	10	10	10	10	10
92	10	10	10	10	10	10	10
93	10	10	10	10	10	10	10
94	10	10	10	10	10	10	10
95	10	10	10	10	10	10	10
96	10	10	10	10	10	10	10
97	10	10	10	10	10	10	10
98	10	10	10	10	10	10	10
99	10	10	10	10	10	10	10
100	10	10	10	10	10	10	10

APPENDIX G

AGE(MEAN) BROKEN DOWN BY LEVEL-OF-TRAINING FOR EACH POST

Age (mean)	In Trng-3 mon		4-9 mon		10-18 mon		Population	
Post	I	II	I	II	I	II	I	II
2	28.81	29.00		38.00	40.33	41.00	31.28	33.50
3	34.22	34.00	35.22	35.25	36.57	39.40	35.24	35.40
4	31.25	26.54		37.16	37.60	35.88	33.11	33.15
5	26.77			27.42	37.83	37.00	31.20	32.53
6	34.80	35.20			41.00	41.42	38.41	38.83
7	27.33			24.14	31.00	24.00	27.70	24.12
8	30.66			31.33	40.25	40.75	34.50	35.10
9	37.50		34.25	38.00		33.80	35.33	35.30
10	25.00			27.14	24.00	29.00	24.66	27.70
11	34.00			35.33	43.14	49.00	38.92	40.80
12	31.40	32.33		40.50	32.33	33.33	31.61	36.66
13			40.33		41.00	42.80	40.50	42.80
14	32.50		34.50	32.83	43.66	37.50	35.53	35.16
15	28.33	29.00			33.00	33.66	30.66	31.33
16	29.00	28.60		25.00	37.00	39.40	33.00	33.18
17	33.33	33.25		32.00			33.33	33.15
18	30.14	33.75		27.33			35.10	31.00
19	31.66	32.00			36.00	38.66	34.14	35.33
20			40.25		46.83	44.50	44.20	44.50
21	25.90		45.00	27.16	30.14	32.25	28.61	30.07
22	33.66	34.00			41.60	41.50	38.62	39.00
23	34.71	38.75	33.42		47.57	44.09	38.57	42.66
24	37.00	30.60	35.25	50.00		39.00	35.83	37.00
Overall							34.16	35.04

YEARS OF EDUCATION(MEAN) BROKEN DOWN BY LEVEL-OF-TRAINING FOR EACH POST

Years of Education (mean)	In Trng-3 mon		4-9 mon		10-18 mon		Population	
Post	I	II	I	II	I	II	I	II
2	12.81	12.50		14.00	14.00	14.00	13.07	13.10
3	12.66	12.62	13.50	13.62	12.30	12.57	12.77	12.91
4	12.56	12.63		12.91	12.80	12.77	12.63	12.78
5	13.00			13.14	12.50	12.62	12.80	12.86
6	13.00	12.60			13.28	13.57	13.16	13.16
7	13.22			13.14	16.00	13.00	13.72	13.12
8	13.16			13.16	12.25	12.50	12.80	12.90
9	12.25		12.50	12.25		12.40	12.33	12.30
10	13.33			13.33	13.33	12.00	13.33	12.88
11	12.00			12.00	12.62	11.75	12.35	11.90
12	12.40	12.33		12.33	13.00	13.33	12.53	12.58
13			14.00		12.00	13.50	13.60	13.50
14	12.66		12.50	12.33	13.25	12.16	12.75	12.25
15	12.66	12.66			12.00	12.00	12.33	12.33
16	12.20	13.00		12.00	13.20	13.40	12.70	13.09
17	12.66	12.75		13.00			12.66	12.76
18	12.87	13.60		13.33	12.75		12.83	13.50
19	12.00	12.00			13.00	12.66	12.57	12.33
20			14.20		13.50	13.81	13.81	13.81
21	12.30		13.00	12.16	13.00	13.42	12.61	12.84
22	12.75	13.33			12.40	12.33	12.55	12.66
23	12.28	12.50	12.28		13.00	12.63	12.52	12.60
24	12.00	12.16		12.00	12.50	12.33	12.12	12.18
Overall							12.78	12.79

WORK(MEAN) BROKEN DOWN BY LEVEL-OF-TRAINING FOR EACH POST

Work (mean)	In Trng-3mon		4-9 mon		10-18 mon		Population	
Post	I	II	I	II	I	II	I	II
2	43.45	38.00		51.00	34.50	36.33	41.06	38.41
3	42.66	42.15	45.11	41.00	40.90	38.14	42.82	40.16
4	42.95	45.72		40.91	41.80	43.88	42.61	43.40
5	42.11			42.42	46.16	42.75	43.73	42.60
6	38.80	41.20			40.00	37.85	39.50	39.25
7	43.44			46.71	48.50		44.36	46.71
8	42.16			43.33	47.75	43.75	44.40	43.50
9	43.00		46.25	41.50		43.00	44.33	42.50
10	33.50			40.14	30.66	32.00	32.55	37.70
11	45.16			46.00	43.62	44.50	44.28	45.40
12	46.75	49.00		47.80	45.33	43.66	46.36	46.80
13			40.00		43.00	42.33	40.60	42.33
14	46.50		47.16	45.16	34.75	45.00	43.81	45.08
15	45.00	44.00			43.33	44.00	44.16	44.00
16	42.80	41.00		33.00	46.80	38.40	44.80	39.09
17	42.75	42.83		46.00			42.75	43.07
18	47.50	48.80		40.66	45.75		46.91	45.75
19	41.00	32.66			38.00	38.00	39.28	35.33
20			39.60		45.16	44.90	42.63	44.90
21	39.55		46.00	40.25	40.14	36.12	40.17	37.50
22	42.25	42.33			44.20	44.00	43.33	43.44
23	48.14	44.25	48.57		38.00	44.36	44.90	44.33
24	48.50	44.66		47.00	48.50	49.66	48.50	46.45
Overall							43.00	42.45

SUPERVISOR (MEAN) BROKEN DOWN BY LEVEL-OF-TRAINING FOR EACH POST

Supervisor (mean)	In Trng-3 mon		4-9 mon		10-18 mon		Population	
Post	I	II	I	II	I	II	I	II
2	45.72	44.85		54.00	44.66	40.00	45.50	44.50
3.	46.88	47.37	46.33	47.50	44.70	42.28	45.92	45.91
4	45.45	47.45		46.33	40.10	50.11	43.88	47.78
5	48.11			49.14	50.33	50.75	49.00	50.00
6.	51.20	44.40			43.71	45.42	46.83	45.00
7	49.77			50.42	35.00		47.09	50.42
8	47.16			47.66	43.25	48.50	45.60	48.00
9	43.75		46.25	42.50		49.60	44.44	46.60
10	26.33			38.85	37.33	36.66	30.00	38.20
11	46.16			43.66	42.12	43.75	43.85	43.70
12	47.25	49.00		49.60	49.00	49.33	47.72	49.40
13			49.25		54.00	47.66	50.20	47.66
14	52.00		46.50	44.50	41.25	43.00	47.25	43.75
15	48.33	49.00			49.00	46.00	48.66	47.50
16	47.20	45.20		49.00	47.80	49.00	47.50	47.27
17	45.33	45.41		51.00			45.33	45.84
18	45.12	49.00			44.50		44.91	46.12
19	42.33	42.33			46.00	48.66	44.16	45.50
20			45.60		47.00	46.18	46.36	46.18
21	48.88		45.00	49.20	36.28	45.00	43.47	46.61
22	36.25	50.66			48.80	47.66	43.22	48.66
23	42.71	47.75	46.42		42.42	44.81	43.85	45.60
24	48.00	46.33		46.50	46.75	46.33	47.37	46.36
Overall							45.18	46.39

CO-WORKERS (MEAN) BROKEN DOWN BY LEVEL-OF-TRAINING FOR EACH POST

Co-Workers (mean)	In Trng-3 mon		4-9 mon		10-18 mon		Population	
Post	I	II	I	II	I	II	I	II
2	41.63	42.14		54.00	45.00	30.00	42.15	40.90
3	42.22	44.12	47.44	40.37	43.55	46.50	44.40	43.17
4	38.62	43.72		39.25	46.90	48.88	41.05	43.50
5	36.88			42.00	38.66	40.37	37.60	41.13
6	42.60	48.40			43.71	38.57	43.25	42.66
7	48.44			49.14	36.00		46.18	49.14
8	44.33			47.33	43.00	43.25	43.80	45.70
9	49.75		38.25	43.66		38.80	44.77	41.77
10	34.83			42.85	37.33	44.33	35.66	43.30
11	50.66			50.00	46.37	30.50	48.21	42.20
12	45.62	43.00		47.80	46.66	40.66	45.90	44.70
13			49.50		54.00	48.66	50.40	48.66
14	47.83		42.50	46.83	36.50	47.16	43.00	47.00
15	51.33	50.33			41.66	43.33	46.50	46.83
16	43.00	44.00		43.00	44.60	42.20	43.80	43.09
17	41.58	46.18		52.00			41.58	46.66
18	39.25	47.60		42.33	37.50		38.66	45.62
19	36.66	40.00			33.33	40.00	35.00	40.00
20			43.20		37.50	39.63	40.09	39.63
21	38.88		45.00	42.60	35.28	31.57	37.76	36.16
22	49.25	48.66			49.20	50.83	49.22	50.11
23	44.00	38.25	52.28		39.57	45.72	45.28	43.73
24	46.75	42.50		45.00	48.75	38.66	47.75	41.90
Overall							42.83	43.50

PAY(MEAN) BROKEN DOWN BY LEVEL-OF-TRAINING FOR EACH POST

Pay (mean)	In Trng-3 mon		4-9 mon		10-18 mon		Population	
Post	I	II	I	II	I	II	I	II
2	8.09	6.71		21.00	9.25	10.33	8.40	8.66
3	6.44	6.28	8.00	4.00	8.10	6.71	7.53	5.56
4	12.12	15.18		11.16	8.20	8.66	10.97	11.84
5	12.11			7.00	9.16	8.50	10.93	7.80
6	9.00	12.80			8.85	13.71	8.91	13.33
7	14.88			9.57	8.00		13.63	9.57
8	9.83			10.50	3.25	3.00	7.20	7.50
9	9.75		8.75	11.00		10.60	9.33	10.00
10	3.33			7.71	13.00	8.33	6.55	7.90
11	12.00			14.83	9.50	10.50	10.57	13.10
12	7.87	9.50		5.60	9.33	5.33	8.27	6.30
13			5.00		9.00	11.16	5.80	11.16
14	4.33		12.16	4.16	10.00	13.66	8.68	8.91
15	7.66	4.33			19.00	18.00	13.33	11.16
16	11.20	8.80		0.00	10.60	7.40	10.90	7.36
17	6.91	7.00		2.00			6.91	6.61
18	4.25	7.60		6.33	8.00		5.50	7.12
19	5.00	3.33			7.00	7.33	6.14	5.33
20			6.40		9.33	7.80	8.00	7.80
21	9.77		14.00	7.80	12.85	8.00	11.29	7.92
22	10.75	7.00			7.20	8.33	8.77	7.88
23	11.14	9.25	14.14		6.00	9.27	10.42	9.26
24	7.25	8.60		4.50	7.00	7.33	7.12	7.40
Overall							9.16	8.75

PROMOTIONS (MEAN) BROKEN DOWN BY LEVEL-OF-TRAINING FOR EACH POST

Promotions (mean)	In Trng-3 mon		4-9 mon		10-18 mon		Population	
Post	I	II	I	II	I	II	I	II
2	8.45	8.42		21.00	6.25	2.00	7.86	7.33
3	13.44	11.20	14.66	6.42	11.80	12.28	13.25	9.70
4	12.75	17.54		11.45	8.70	11.44	11.55	13.61
5	18.55			14.42	15.16	14.25	17.20	14.33
6	15.00	17.40			12.85	8.00	13.75	11.91
7	12.88			4.57	0.00		10.54	4.57
8	12.83			6.33	1.25	0.75	8.20	4.10
9	18.25		17.75	14.25		17.20	18.66	16.80
10	5.16			7.71	3.33	0.33	4.55	5.50
11	19.83			18.66	14.00	9.00	16.50	15.44
12	18.00	14.00		8.00	14.66	11.33	17.09	10.20
13			8.50		23.00	18.33	11.40	18.33
14	15.00		13.66	11.83	9.00	11.16	13.00	11.50
15	24.33	24.33			15.66	14.66	20.00	19.50
16	9.60	6.80		0.00	7.80	2.40	8.70	4.18
17	5.00	7.66		10.00			5.00	7.84
18	11.00	14.00		5.00	9.00		10.33	10.62
19	7.00	8.66			3.50	3.00	5.00	5.83
20			12.60		17.00	11.50	15.00	11.50
21	6.00		6.00	3.40	8.42	2.00	7.00	2.53
22	10.75	4.00			6.40	4.66	8.33	4.44
23	19.14	15.00	15.00		8.14	7.27	14.09	9.33
24	16.25	9.20		7.50	9.50	5.50	12.87	8.00
Overall							11.85	9.96

DISTRIBUTION LIST

DISTRIBUTION:

Commanders, ATTN: DDS (1 ea)

BAMC

DDEAMC

MAMC

TAMC

WBAMC

WRAMC

Commanders, US Army MEDDAC, ATTN: DDS (1 ea)

Aberdeen Proving Ground

Ft. Belvoir

Ft. Ben Harrison

Ft. Benning

Ft. Bragg

Ft. Campbell

Ft. Carson

Ft. Clayton

Ft. Devens

Ft. Dix

Ft. Eustis

Ft. Hood

Ft. Huachuca

Ft. Jackson

Ft. Knox

Ft. Leavenworth

Ft. Lee

Ft. Leonard Wood

Ft. Meade

Ft. Monmouth

Ft. McPherson

Ft. Ord

Ft. Polk

Ft. Richardson

Ft. Riley

Ft. Rucker

Ft. Sill

Ft. Stewart